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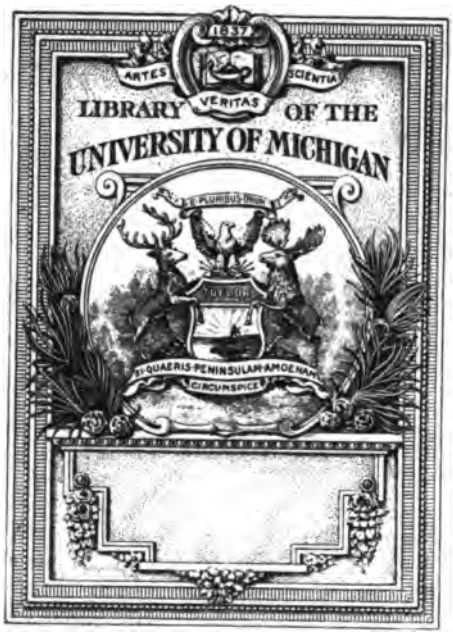

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CRITICISM AND NEWS.

EDITED BY

J. L. DAVISON, B.A., M.D., C.M., M.R.C.S.,E.

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Original Communications.

PLEUROTOMY FOR EMPYEMA, METHODS OF DRAINAGE, WITH REPORTS OF CASES.*

BY DR. N. A. POWELL, TORONTO.

From the age of the father of medicine down to a period within the recollection of most of those present, purulent pleurisies have been the despair of the physician, and have ranked among the gravest conditions in which the surgeon has been called upon to be frail Nature's helper. An early and positive diagnosis being impossible in the absence of a knowledge of aspiration, the pus in a small proportion of cases was reabsorbed, giving rise to hectic fever or septicemia. In a much larger proportion of cases perforation took place through the chest wall, or more commonly through the lung. Following spontaneous perforation the result at first was often favorable, but owing to imperfect evacuation, cures were rare, and if obtained, they were accompanied by great chest deformity. That Nature could not be trusted to effect a cure, was early recognized. The inutility of medical treatment was still more evident. Surgical aid was invoked, but disaster following pleurotomy was so mixed with the benefit sought to be obtained, that alternately this operation was abandoned and again advocated. Yet, as Douglass Powell puts it, "the prognosis without surgical help is practically hopeless."

The earliest pleurotomy of which I have knowledge as having been performed on this continent, was done by Dr. Felix Christian Spöre, surgeon to a vessel which called at Reed's Island, near Cape Cod, in 1662. He found a son of the governor of the island in a very low condition from an empyema, incised it, allowed two pounds of offensive pus to flow away, and then remembering probably the teaching of Hippocrates, he plugged the opening with lint. So immediate was the relief that the patient said he felt better than he had from the twenty purges and thirty clysters previously administered. That same evening and the following days the pus was drawn off, and the cavity cleaned by injections, and in three weeks the patient was well and able to return to business.

From German statistics, in 1876, Ewald calculated the mortality after incision in purulent pleurisy, to be from 50 to 60 per cent. With us, I have an impression that it does not exceed 20 per cent. Possibly the recovery of all my own cases, has led me take an optimistic view of the prognosis in this exceedingly grave disease. Although I know that they are too few in number to draw any safe conclusions from, I present their histories in outline, being desirous of calling attention chiefly to the methods adopted for securing those great essentials after operation: free drainage, an aseptic condition, and the rapid obliteration of the cavity by adhesion of its surfaces.

CASE I. Boy, aged 8 years. Seen in consultation with Dr. W. H. Blackstock. Pleurotomy in 7th left interspace at mid-axillary line. Fluid thick, with large and heavy flocculi; washed out with a 2 per cent. carbolic solution. Drainage by a large Nelaton catheter passed through a hole punched in a strip of Esmarch bandage. The bandage was doubled at the point where the catheter was drawn through, and the doubled parts were secured together by paper fasteners. The hole punched in the bandage was of such a size as to prevent the catheter being easily drawn in or out. For the suggestion of this plan I was indebted to my friend Dr. Ely, of Rochester. To the outer end of the catheter was attached a glass tube, passing through the stopper of an 8 oz. vial, and reaching nearly to the bottom of the bottle. After the operation, the boy wore this bottle in a hip pocket by day, and had it beside him in bed by night. It was kept three parts filled with carbolic solution, and changed as required. To wash out the chest, all that was necessary was to raise the bottle, when fluid syphoned into the pus-cavity, returning into the bottle when it was again lowered. For about a week this case progressed well, and then the boy

*Read before the Toronto Medical Society.

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finding the tube an inconvenience in his play, pulled it out of his chest. A chill and a temperature of 104° followed, but improvement went on again when the tube was re-introduced, and within a month recovery was complete.

CASE II. Man, aged 22. Pleurotomy in 6th interspace, right side, at the anterior axillary line. Drainage as before. Irrigations carried out at home. Tube gradually shortened until the sinus closed nine weeks after operation. Lung expansion complete and chest wall normal.

CASE III. Man, aged 20. Seen after spontaneous perforation had taken place in a 5th interspace in front—the usual point for such perforation in adults. Free drainage and antiseptic irrigations led to recovery with considerable condensation of the lung, and retraction of the ribs of the side affected.

CASE IV. In all essential particulars was similar to Case III.

CASE V. Boy, aged 4 years. Empyema pointing in 2nd interspace—the usual place in children. Thorough drainage after the manner of Cassaignac for a few days. Then the upper opening was allowed to close, and the discharge was received into absorbent antiseptic pads. Gravity injections were used only when flocculi occluded the sinus. Cure complete in about seven weeks.

CASE VI. A boy, aged 17. After a pneumonia involving the lower and middle lobes of the right lung had well advanced toward resolution, a relapse took place. Marked dulness corresponding to the fissure between the two lobes involved, was noted. Two days later the presence of fluid in considerable quantity was recognized, and I was asked by my assistant to see the case. I did so, and we removed by aspiration 70 oz. of pus. Œdema of the chest wall was well marked up to the level of the 3rd rib in front. As the flat line rapidly crept up again, I did pleurotomy and and established a syphon drainage, secured as before by rubber belt. About a pint of pus was washed out daily, or ran out into the bottle, which was placed on the floor beside the bed. Chills, fever, and heavy perspiration returning, we removed the tube and sought for the cause of the septicemia. It was noticed that two entirely different kinds of pus came from the wound, one thin and not offensive flowing from a sac that could be traced straight in toward the root of the lung for quite six inches; the other thick and very offensive, coming out from the lower and back part of the pleural cavity. Passing a Simpson's sound to the bottom of this latter collection, I cut down upon it, making a 2½ inch opening, and drawing through from one opening to the other a rubber drain. This drain was threaded with horsehair to prevent its occlusion by clots, and its outer ends were coupled together by a bit of glass tube. The single drain was returned to the upper sac, which we now recognized as being an inter-lobar one. Gravity injections were made into each cavity, one or two quarts being used daily for more than three months. If these were omitted for even two days septic symptoms returned, and they had to be resumed. At about the end of the third month a pleuro-bronchial fistula formed. Iodine solution injected into the inter-lobar sac was coughed up, but none returned by the air tubes when injected into the lower pleural sac. Recovery was reached after about six months of constant attendance.

A year later this patient was examined; his general health was good, and but slight difference was noticed in the expansion of the two sides of his chest. Air entered freely all parts of the lung on the affected side, and only the evidences of thickened pleural membrane were present.

Regarding the diagnosis of empyema, the presence of an area of flatness on percussion, and of silence on auscultation where we should get resonance and normal respiratory murmur, calls for an exploratory puncture, which can safely and almost painlessly be made by a hypodermic syringe. Should the area spoken of be found in either subaxillary space, the presumptive evidence of the presence of fluid is greatly strengthened. Indeed, a dull space here, if its upper boundary be arched toward the axilla, is strongly indicative of effusion and should be tested with the needle.

I do not think sufficient attention is given to the fact that the line which bounds superiorly the flatness, in cases of effusion into the pleural cavity, is a curved line rising highest toward the axilla, and not a water-level line. This point first observed, so far as I know by Damoiseau, in 1843, is an important one. M. Peter, of Paris, Dr. Calvin Ellis, of Boston, and others, have written upon the subject. For about ten years, that is, since the date of Dr. Ellis' paper, December, 1876, I have examined for this, and so far have found it

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in all but the very largest effusions. Even these, when reduced by aspiration or absorption, have given the Ellis curve. I show you diagrams illustrating some of the curves thus made out. My own limited observations are quite in accord with those of Dr. Ellis, regarding the persistence of flatness in the sub-axillary region, after resonance had returned in the vertebral groove.

Fluid being found, its physical characteristics, its reaction with ammonia, and its microscopical examination showing the proportion of leucocytes present, will point to the line of treatment that should be followed. A notable purulency being recognized, an expectant treatment, excepting in tubercular cases, is entirely unjustifiable. We must act, and act at once, or take the responsibility for a largely increased mortality. Aspiration may be done once or twice for adults, and perhaps more frequently for children. This failing, the empyema should be treated like any other abscess, and opened antiseptically. If the fluid be thin, with few and small fibrinous clots probably present, syphon drainage by the method detailed in Case I seems to me most advisable. My own success with it may unduly prejudice me in its favor. Other men, among whom I may mention Douglass Powell, have less confidence in it. When consent to the opening of the chest by a surgical dissection, layer by layer, cannot be obtained, a large trocar may be introduced, and through it a drainage tube passed. To collect the pus as discharged, a condom has been used secured to the outer end of the tube, but I like better the plan of draining into a bottle of carbolic solution, or into abundant absorbent dressings, the best of which are of sublimate gauze with bags of German peat externally, all secured by a Martin's bandage around the chest. Oakum, on account of its cheapness, may be used for the outer layers.

I advocate the use of syphon drainage and irrigations on so long as they answer all indications. A free incision done antiseptically must not be delayed, when from any cause the plan spoken of fails. So far, I have not needed the silver tube of Lister to keep the opening pervious; any tendency to premature closure has been met by tupelo tents or uterine dilators.

Finally, permit me to state that in my opinion our success in dealing with pyo-thorax, will be in direct proportion to the use which we make of the two great factors which enable us to obtain better results, than those of such men as Dupuytren and Sir Astley Cooper. These factors are an early aspirator-diagnosis, and the application of the principles of antiseptic surgery to the operative procedures undertaken in, and to the after treatment of, these cases.

Discussion is invited upon the following, with other points :—

1. Within what limits may we trust to aspiration in empyema? Within what to syphon drainage?
2. When should through drainage be established?
3. Is there any best place at which a drainage tube should be introduced?
4. What advantages are presented by the different methods of after treatment of the opening?
5. Regarding irrigations: what solutions have proved most useful, in what quantities and strength are they to be used, and what dangers attend their employment?
6. The Ellis curve, its frequency of occurrence, its importance and its cause.

LACERATIONS OF THE CERVIX UTERI.

BY DR. FENWICK, KINGSTON.*

I have been greatly impressed in studying the subjects of Obstetrics and Gynecology, with the fact that so many contributions have come from this side of the Atlantic. McDowell did the first ovariotomy; Battey the first oöphorectomy; Hodge has immortalized his name in connection with uterine displacements, and his name will always be associated with that pessary which bears his name. The invention of the duck-bill speculum by Sims, which, by a new principle, exposed to view and allowed a more complete examination of the uterus. So great were Sims' contributions to practical gynecology that it has been said, if all he had done were suppressed, we should have retrograded at least a quarter of a century. And, lastly, Emmet has discovered a pathological factor, and invented a means of relief which is one of the many gynecological advances of the past twenty years. Dr. Thomas says, "the diagnosis and treatment of lacerated cervix is a pathological contribution which, even if this eminent

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author had done nothing else to lay his profession under obligation, would indelibly write his name upon the records of Gynecology. No one contribution to this department which has been made in the period mentioned has exerted a more marked influence upon uterine pathology than this is now doing, and will do in the future. None will have more influence in abolishing useless and hurtful therapeutical resources."

Although laceration of the cervix was described by Dr. Bennett forty years ago, its importance as a pathological factor was only recognized by Emmet in 1862, when he at once set about a means of cure. He first published an account of his operations in 1869, but it was not until 1874 that general attention was drawn to the subject.

The existence of a laceration may sometimes be early recognized by the presence, after confinement, of an elevated temperature, indications of septicemia, the absence of milk, and a general impression that the patient is not doing well. These symptoms are due to cellulitis which sometimes occurs with a laceration of the cervix, without which it would otherwise have healed, but which causes local obstruction of the circulation, and so arrests involution and the repair of the injury. It would be well, therefore, when such a condition occurs after labor to make an examination, not immediately when the parts are so soft that the tear could not be felt, but six or eight weeks afterwards, and then by appropriate means prevent a life of suffering.

Now, while on the one hand I believe some have laid more stress upon this condition than they should, and have even operated when it was not necessary, Emmet going so far as to say that "at least one-half of the ailments among those who have borne children are to be attributed to lacerations of the cervix"; on the other hand there is little doubt that this condition is often overlooked by the general practitioner, or it is mistaken for erosion of the os (so-called ulceration), or cancer, and either improperly treated or neglected. A middle course is the safest one, and the truth probably lies in the following propositions:—1. A certain degree of laceration of the cervix is the rule in all first labors.

2. A certain number of these are entirely recovered from, or else they exist without producing any symptoms.

3. A certain proportion form important factors of disease.

It is this last class of cases that alone require Emmet's operation, and in which relief of the symptoms may be expected. The tendency then of laceration of the cervix is to heal unless either septic poisoning takes place, or the tear extends beyond the crown of the cervix into the connective tissue, the accompanying cellulitis obstructs the circulation, interferes with involution, and thus prevents repair of the injury. It is most commonly met with on the left side, probably because the vertex usually occupies the right oblique diameter; and the next in frequency is the bilateral.

When a laceration of the cervix exists, there is a tendency, especially on standing, for the uterine tissue to roll out, while the obstructed circulation, the irritation of the vagina, and the resulting subinvolution increases the laceration; and as the vaginal outlet is usually patulous—owing perhaps to the use of forceps, or traction, or the accompaniment of a ruptured perinæum—there is usually prolapse and retroversion. The reticulated mucous membrane, containing numerous Nabothian glands, undergoes cystic hyperplasia and granular degeneration, resulting in a condition closely resembling erosion (so-called ulceration,) or even cancer.

Then we have inability to walk or stand comfortably, backache, pains in the abdomen, irritability of the bladder, profuse menstruation, leucorrhœa, headache, insomnia and other nervous derangements, and lastly sterility; or if pregnancy should occur, it usually results in abortion. If, then, these symptoms which are so pronounced, can be relieved by trachellorraphy, surely a great advance has been made by this discovery, for there is little doubt that if neglected, this condition is sometimes a cause of cancer. In my own experience, which has been considerable, every case which I have operated upon has been completely relieved, and in two of them pregnancy followed, one of these having been delivered without a recurrence of the laceration or a return of the former symptoms. The method which I have employed during the past year, is to mark out the intended incision with a scalpel, then remove the angle or cicatricial plug (as it has been called) with Skene's Hawkbill scissors, then trim the edges with knife and long-handled scissors, and stitch up with chromic cat-

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gut. This has the power of resisting the tissues for two weeks, and can be removed with the finger nail on making an examination after that time, up to which period there is no need of disturbing the patient, nor any danger of re-opening the wound, as there is with either silk or silver wire.

BENIGN GROWTHS IN LARYNX.*

BY DR. TOBIN, F.R.C.S., HALIFAX, N.S.

Now that the care of a royal personage, the Crown Prince of Germany, is attracting so much attention, and the selection of his medical adviser (Dr. Morell Mackenzie), has cast such a lustre on British surgery, I have thought that the details of a similar case might be interesting to those amongst you who take an interest in Laryngology.

A. C., aet. 50, a healthy looking farmer, from Antigonish county, was brought to me in consultation by Dr. Fraser, of this city, on the 22nd April, 1884. Has suffered from hoarseness, with occasional almost complete loss of voice, for some months. Attributes throat trouble to over-exercise of voice in shouting, etc., at election time.

The voice is now reduced to a mere whisper; respiration slightly impeded; no difficuly in swallowing; complains of a hacking cough, with slight frothy expectoration, at times streaked with blood; is worse in damp, cold weather. On examination with the laryngoscope, the pharynx was found slightly congested. He was a capital subject for examination and operation, by the way, as the pharynx was roomy and not over sensitive. The larynx was uniformly hyperæmic; the cords were congested and a small growth about the size of a split-pea, with a broad base, occupied the extreme edge of the right one; a smaller growth was seen in the angle of the cords, below the cushion of the epiglottis. It was decided to deaden the sensibility of the parts by the use of bromide of potassium internally, and to apply solid nitrate of silver and other astringent pigments locally. He was given ice to suck, previous to each operation, and the growths were cauterized twice daily for a week, in which time the parts had become so irritable, that the treatment had to be discontinued. He was sent home for a month, and, whilst in the country, wrote to say that after the irritation had subsided, his voice had improved somewhat.

On the 11th June of same year, he returned to town; the voice was still hoarse and brassy; the polypi were somewhat smaller; he was again put upon brom. pot. mixture (as a matter of form), and ordered to attend twice daily; at each sitting, after the larynx had become used to the passage of an instrument, the growths were seized and crushed and small portions were torn away with the forceps. Very little pain or irritation followed these operations; when the basis of the growths alone remained, these were touched with solid nitrate of silver, applied with the laryngecal porte caustique of Fauvel. All operations were conducted in a strong light, with the help of the laryngeal mirror, and generally without assistance. He left town finally on the 23rd June, the larynx a good deal congested from the frequent manipulations. I heard from him a month later, expressing himself as much pleased with the result, his voice having increased in volume and his breathing much easier. No microscopic examination of the morsels extracted was made, but the fact of the man being alive and well to-day (4 years after operation), excludes all idea of malignancy.

These benign polypi of the larynx have been defined as "tumours having nothing in common with tubercle, syphilis or cancer" (Fauvel). They are generally senile, rose-colored, varying in size from a pin's head to a chestnut, and are of different consistency. The papillomata are the commonest, but myxomata, fibromata, epitheliomata and sarcomata occur. They vary in position, but most commonly occupy the ventricles of Morgani, or the upper surfaces of the vocal cords. They are due principally to local irritation, producing chronic hyperæmia of the parts. They can only be diagnosed with certainty with the laryngoscope. They are accompanied by slow suffocative symptoms; pain and dysphagia are rare. The diagnosis lies between the benign growths and syphilitic, cancerous and tubercular deposits. The progress of the disease is slow, varying with the nature of the growth. The fibromata are the slowest, and least liable to recurrence after removal. The sarcomata the quickest and the most fatal. The tendency is to death by suffocation. Treatment is extra and intra-laryngeal. The intra-laryngeal

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method is more approved of by French and English specialists. If suffocation threaten, a preliminary tracheotomy is advisable. Operative procedures consist in tearing, crushing, excision and cauterization. Patient needs preparation — to deaden the sensibility of the parts—for which purpose cocaine serves admirably, and the larynx must be gradually accustomed to the passage of instruments. The growth is usually torn away in morsels, inflammation and absorption following. Cauterization is most useful when the growth is of recent formation, and after crushing operations. The direct application of solid caustic to the part with a porte caustique, is recommended. Crushing and tearing operations suffice for most cases, are attended with the least danger; there is no loss of blood and no liability to accidents—as when cutting instruments are used. Relapses are least frequent after these operations.

The foregoing remarks have been condensed from the written views of Fauvel, Lenox-Browne and Morell Mackenzie.

Selected Articles.

THREE HUNDRED CONSECUTIVE CASES OF HÆMORRHOIDS CURED BY EXCISION.

BY DR. WALTER WHITEHEAD.

During the first five years of my professional career, I employed the ligature in the few cases of severe hæmorrhoids that came under my treatment. I operated according to the most approved method of that time, cutting through the skin and mucous membrane, and applying the ligature to the artificially produced pedicle. The number of cases operated upon did not, perhaps, exceed a dozen; nevertheless, they were sufficient to convince me that the ligature by no means produced a radical cure. One of my patients returned almost as bad as ever, and the reports I heard of another were anything but satisfactory. Although I have rarely made use of the ligature since, I have, during the last fifteen years, frequently operated a second time on patients whose piles had been previously ligatured. In some of these recurrent cases the operation had been performed by men of eminence in this department of surgery, leaving piles so extensive that it has been difficult to believe that they had ever been subjected to a previous operation. Amongst these, one was a case operated upon by Salmon, thirty-six years ago.

After abandoning the ligature, I adopted the clamp and cautery, which to the novice appear to have such fascinating advantages. For eight years I treated all my cases in this manner, and I devoted a considerable amount of attention during this time to the construction of an instrument, which I eventually finished to my satisfaction, and called a Speculum Clamp. This instrument I now produce; and merely mention it to show that for the time I had a strong prejudice in favor of this method of treatment. My experience of the clamp and cautery, which certainly exceeded fifty cases, resulted eventually in the conviction that it was decidedly inferior to the ligature. The immediate risks I found to be greater, and the failures by recurrence more numerous. Certainly it was more frequently followed by secondary hæmorrhage, and I am aquainted with cases where the bleeding, which is reported to have taken place, must have been little less alarming after the use of the clamp and cautery than that which occured in those days when hæmorrhoids were unceremoniously excised, and no precautions whatever taken to arrest hæmorrhage. These cases were operated upon by surgeons of recognized repute in this special method of treating piles. I consider that a plan of treatment which fails to compass that special end for which it was designed, and in addition has other obvious disadvantages, besides the further objection of being somewhat difficult to understand and complex in execution, loses its position in surgery, and must give place to other operations which involve less risk, give better results, and do not require any special surgical training.

Being convinced of the disadvantages and the imperfections of the ligature, and the clamp and cautery, I abandoned both in 1876, and I have never used either of them since.

During the last nine years, with the exception of a few cases treated by thermopuncture, and others by the injection of chemical agents, I have almost exclusively removed hæmorrhoids by excision; and unless I had very ample and sound grounds for advocating the advantages of this plan of treatment, I should have deferred saying anything until such time as much greater experience would have justified the course I am now taking. It has, however, so far exceeded all my expectations, that I have no hesitation in expressing my conviction that it surpasses in every respect every other operation designed for the same purpose. I have now operated upon more than three hundred patients without a death, a single instance of secondary hæmorrhage, or one case where any complication, such as ulceration, abscess, stricture, or incontinence of fæces, have occured. I may go further, and state that I have never had one moment's anxiety about any of the cases, and to the best of my knowledge every patient has been completely and permanently cured.

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I am now, with all due diffidence and respect, going to make what may appear a very bold statement. I do not consider that any surgeon has a through conception of hæmorrhoids until he has performed the operation of excision. He may have dissected the cadaver any number of times with the special object of studying the structure of hæmorrhoids, but it is only on the living subject that dissection will reveal their true nature. It is these vivisections that have confirmed my belief in the inefficiency of the ligature and the clamp, and they have revealed also the cause of failure. In surgical literature we read of hæmorrhoids as distinct individual tumors, but the vivisections I have referred to demonstrate that the entire plexus of veins surrounding the immediate interior of the gut is invariably at fault. Without doubt the hæmorrhoidal condition is marked by special protuberance at certain points in the circumference of the gut; and these I find have a pretty uniform position, owing no doubt to the regular disposition of the fibrous septa.

But the essential fact remains that, though possibly concealed by these masses, there are minute venous radicles behind and between the main tumors. They are now as small as their larger neighbors once were, but let the latter be removed by clamp or ligature, and the apparently insignificant venules will dilate and take their place, the very removal, perhaps, affording room for growth, and whilst taking off external pressure leaving the tension within increased. It is on the removal of these rudimentary piles, that the permanence of the cure and the future welfare of the patient depend; and I contend that the operation of excision alone satisfactorily accomplishes this object.

The principles of the operation are exceedingly simple, and its performance requires no special apprenticeship. I have received numerous letters from provincial practitioners, who had only read the original description I gave in the *British Medical Journal* for Feburary, 1882, expressing their entire satisfaction with the operation. As I have since slightly modified the operation, I will first briefly describe it, and afterwards discuss in more detail some of the stages which, perhaps, require further explanation and some vindication at my hands, as the operation is opposed to some of the most cherished practices of modern surgery.

1. The patient, previously prepared for the operation and under the complete influence of an anæsthetic, is placed on a high narrow table in the lithotomy position, and maintained in this position either by a couple of assistants or by Clover's crutch.

2. The sphincters are thoroughly paralyzed by digital stretching, so that they have no "grip" and permit the hæmorrhoids and any prolapse there may be to descend without the slightest impedient.

3. By the use of scissors and dissecting forceps, the mucous membrane is divided at its junction with the skin round the entire circumference of the bowel, every irregularity of the skin being carefully followed.

4. The external and the commencement of the internal sphincter are then exposed by a rapid dissection, and the mucous membrane and attached hæmorrhoids, thus separated from the submucous bed on which they rested, are pulled bodily down, any undivided points of resistance being snipped across, and the hæmorrhoids brought below the margin of the skin.

5. The mucous membrane above the hæmorrhoids is now divided transversely in successive stages, and the free margin of the severed membrane above is attached, as soon as divided, to the free margin of the skin below, by a suitable number of sutures. The complete ring of pile-bearing mucous membrane is thus removed.

Bleeding vessels throughout the operation are twisted on division. This brief description comprises the several stages of the operation.

1. In the first place it will be observed that beyond the chloroformist the operation requires no skilled assistance. A single nurse is quite sufficient, and I have on more than one occasion dispensed with assistance altogether.

Contrary to general recommendation, I prefer the lithotomy position, with the legs well flexed on the thighs, and the thighs on the body. This raises the whole pelvis, and gives the surgeon a commanding view of the field of operations. I sit in front of my patient, with my work on a level with my shoulders.

2. I have a strong objection to the use of instruments in the dilatation of the sphincters. Not only are they apt to produce sloughing, which would jeopardize the success of the final step in the operation, but the danger of rupture and possible future incontinence is also greater, for the resistance can only be very imperfectly estimated, and the pressure cannot be regulated with delicacy, and is moreover unequally applied; I therefore invariably employ digital stretching. With the finger the pressure can and ought to be distributed all round the circumference of the bowel, so that the muscles are uniformly stretched and not torn. If the sphincters be firm I generally introduce my two first fingers or thumbs, and knead the muscles all round, but if the parts are more relaxed, I at once collect the fingers in the form of a cone, and gradually pass in as much of the hand as is necessary. If ordinary prudence is exercised, the sphincters will invariably be restored to the full exercise of their natural function within three weeks.

3. It is better to commence the separation of the mucous membrane from the skin at the lowest point and deal with the two sides in succession,

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before completing the circle above, so that any oozing that may occur shall be below the work as it proceeds. The incisions must be made through the mucous membrane and not through the skin. It is very important that no skin shouldbe sacrificed, however redundant it may appear to be, as the little tags of superfluous skin soon contracts, and eventually cause no further inconvenience. If this precaution be taken there is no fear of stricture, which, as Treves has shown, is much less common even after elimination of a complete segment of gangrenous bowel than was once imagined.

The attachment of the mucous membrane and piles to the sphincters is so slight that I either employ the closed scissors as a raspatory or use my fingers in their separation. The firmest adhesions are always found at the highest and lowest points where the fibres of the external sphincters converge. With a very little patience the whole of the hæmorrhoidal plexus can be isolated and the membrane drawn down, leaving the external sphincter almost bare and cleanly dissected. Up to this stage of the operation there is practically no hæmorrage, for, as is well known, the arteries which supply the rectum run immediately beneath the mucous lining, and not in the loose tissue separating it from the sphincters. They are, however, necessarily cut in the next step, which consists in the transverse division of the mucous membrane just above the piles. To prevent hæmorrhage it is advisable to cut through the bowel by degrees and to twist each bleeding vessel as it is divided. After securing the vessels, before making any further incision in the bowel, I attach the free edge of the piece of mucous membrane first divided to the corresponding portion of skin at the verge of the anus. This procedure is repeated until the entire circumference of the bowel is secured to the skin. By this means I almost invariably secure healing by first intention.

The arteries met with are exceedingly small, easily seized, and only require a few twists of the forci-pressure forceps to prevent both immediate and secondary hæmorrhage. Ligatures may slip off, be torn off by the first action of the bowels, or ulcerate through before the vessel is occluded, but torsion never fails.

I have often operated on severe cases and not found it necessary to twist a single vessel, and very frequently only one or two. The rectum and four inches of the bowel can be excised as I have excised it, without securing a single vessel, and I have proved that 300 operations for the radical removal of piles can be effected without a single instance of secondary hæmorrhage; consequently I consider that special instruments and extraordinary precautions may be finally dismissed, and the excision of hæmorrhoids once more be admitted within the pale of general surgery.

I do not make use of any sponges during the operation, as I very much prefer little squares of lint wrung out in hot spirit and water.

Before closing the wound I insufflate iodoform between the raw surfaces, as I find it checks any tendency to sanguineous oozing, and facilitates primary union. For the purpose of suturing the mucous membrane to the skin, I always employ carbolized silk, and I never take out the stitches, as I find they come away of themselves without creating the needless alarm to the patient which their removal generally occasions. Indeed, after the operation, there is no real necessity ever to look at or touch the parts again.

Whilst the patient is still on the table, I introduce into the rectum a suppository containing two grains of extract of belladonna, give the external parts a final dust with iodoform, and place over all a strip of oiled lint, which is retained in position by a T-bandage.

For the first few days, with highly neurotic patients, I keep a bag of ice in close proximity to the rectum, and I generally recommend a dose of castor-oil to be taken on a empty stomach on the morning of the fourth day. The patient sits up on the fourth day, and is in a condition to resume work within a fortnight.

I rarely find that the patient suffers much pain after the operation, though this depends chiefly on the nervous susceptibility of the individual. Some aching in the back may be complained of, as in other pelvic operations, but this is generally relieved by change of posture. If the change of posture does not answer, a hot water-bag or hot salt applied to the back will generally give immediate relief.

Retention of urine occasionally follows, and sometimes I have found it desirable to use a catheter; but, as a rule, I direct the patient to pass water on his hands and knees, and after a little patience he succeeds. I have never but once known the use of the catheter absolutely and urgently required, and that was in a case in charge of another medical man, who confessed that he had prematurely attempted to pass an instrument and failed, and admitted that the retention was more due to his clumsiness than to the real necessities of the patient. I am of opinion that this complication is met with less frequently after excision than after any of the other operations which aim at the same result.

Such, gentlemen, is the operation I wish to advocate for the removal of hæmorrhoids by excision, or I might rather say, for the removal of the hæmorrhoidal area by excision; and I claim:

1. That it is the most natural method, and in perfect harmony with the most approved principles of surgery.

In illustration of the inconsistencies that have from time to time been introduced to support special departures from the ordinary practice of

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general surgery on this subject, I will quote the arguments which have recently appeared from the pen of a distinguished surgeon. In the *Brit. Med. Jour.* for 1882, he states, with reference to the ancient plan of excision of the mamma: "The breast was laid hold of with great pincers, and having been cut clean off, the surface was rubbed over with a red-hot poker. Against a proceeding so shocking to the age, modern taste revolted." And yet this distinguished surgeon writes, in 1884: "There have been three great strides in the surgery of the rectum, and one of them is the treatment of hæmorrhoids by the clamp and cautery." Now, I ask, what does the clamp-and-cautery treatment imply if it does not mean that the tumor is laid hold of by pincers, and having been cut off, the surface is rubbed with a red-hot poker. The rectum has its rights, I consider, as well as the breast, and I therefore claim for it the privileges of modern surgery. Curiously, the same author, in 1886, takes exception to the scientific construction of the clamp now almost universally employed.

2. Excision, in addition to its simplicity, requires no instrument which is not found in every practitioner's pocket case.

3. It is a radical cure. It removes the peculiar pile-area, and I believe recurrence to be impossible.

4. Though no operation is absolutely devoid of risk, I consider that excision in this respect is at least on a par with the safest method yet recommended for the removal of piles.

5. The pain after excision is slight in amount, of short duration, and, I believe, less severe than follows any of the other operations.

6. The loss of blood at the time of operation is so small as hardly to merit notice; though perhaps in this respect it must give precedence to the ligature and clamp; but, so far as secondary hœmorrage is concerned, the risks are unquestionably less.

In conclusion, allow me to recapitulate briefly what my contention is. I contend that the internal hæmorrhoids, which are generally regarded as localized distinct tumors, amenable to individual treatment, are, as a matter of fact, component parts of a diseased condition of the entire plexus of veins associated with the superior hæmorrhoidal, each radicle being similarly, if not equally, affected by an initial cause, constitutional or mechanical.

I am of opinion that, when surgical treatment becomes imperative, the extent of the mischief can only be appreciated and effectively dealt with by a free exposure of the diseased vessels, and that no procedure fulfils this purpose short of a deliberate dissection of the lower rectal area.

And, finally, I consider that any operation, which has for its object the removal of hæmorrhoids, is not complete which does not provide for the readjustment of the healthy tissues, with the object of securing primary union and rapid convalescence.

The dread of hæmorrhage in excision of hæmorrhoids, is a delusion which has been fostered and sustained by potential authorities who have, I consider, for the last thirty years, indulged in unjustifiable departure from the sound principles of general surgery.—*Brit. Med. Jour.*

GENERALISATIONS REGARDING THE PATHOLOGY OF ABNORMAL GROWTHS IN MAN AND ANIMALS, AND THEIR EXPLANATION ON THE EVOLUTION THEORY.

No branch of comparative pathology has received more careful study than that which deals with the mode of growth and variations in the histological structure of the various tumours, malignant and benign. In these short notes I propose to restrict myself to a cursory survey of the etiology of abnormal growths, not criticising views which are generally held, and not dealing with the actual or immediate cause, but suggesting a general basis which may be regarded as the ultimate cause to which such abnormal manifestations may probably be traced. In order to clearly explain my meaning and to illustrate it more fully, some remarks of my brothers, Dr. Astley and Professor George Gresswell, may, in the first place, be mentioned.

It may be said that all new formations, as instances of which the enchondromata may be taken, are characterised by the preponderance of cellular elements. These are, of course, variously modified. They may fibrillate, and, further, may be at length calcified; but very rarely, if ever, do they develop into the highest form of tissue, the muscular and the nervous (Buhl). This latter fact is only to be expected, since the tissues of most important specialisation must necessarily be those which are produced, so to speak, with greatest difficulty. It is a familiar fact that all the tissues of organisms are to be regarded as having their origin in cells. Similarly, too, new formations in man and animals are also traceable to the proliferation of cells. Necessarily, the cells become more or less modified so as to become almost, if not quite, indistinguishable from their parent cells. New formations of all varieties are, I hold, to be looked upon as reversionary in nature, and are clearly traceable to a remote ancestral condition, when the primary importance of cells as units not greatly modified, distinct and uncombined into aggregates or but imperfectly and incompletely combined, was far greater in the respect of individual power than it can be, where each cell is dependent on the activities of other units, with which it is combined as in the higher forms of life.

As illustrating my theory, let me briefly consider

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some points regarding the enchondromata. Enchondroma myxomatodes presents structural features, such as are met with in the notochord of the vertebrate animals. The cells of some enchondromata are stellate, their processes uniting into a network. A like condition of cellular structure is met with in the selachii, which may be regarded as the root forms of the vertebrates. Again, enchondromata are most common in the limbs, and especially in their distal extremities; and, since the original condition of the vertebrate limb is represented in the selachii as a multitude of cartilaginous rods arranged in a definite manner (the rods increasing in number towards the distal extremity of the pro-pterygium, the meso-pterygium, and the meta-pterygium), we are perhaps justified in looking upon these facts as showing to us homologous relationship. Corroboration is seen in the frequency with which cartilaginous bodies develop in connexion with certain joints of the limbs in man and animals. These bodies are either single or multiple, and they are of all sizes up to that of a small apple. Cruveilhier figures a number of rounded cartilaginous bodies in the elbow joint. Mr. Smith removed over 200 loose rounded cartilages from the knee joint of a man at St. Bartholomew's Hospital. He also operated on a woman, aged twenty-eight, who had for six years presented a tumour in the upper third of the right arm, immediately beneath the skin. The tumour was pyriform, tapering towards the axilla. It was three inches and a half long, and two inches in diameter at its thickest part. It was encapsuled, and within the capsule there were found one large mass of cartilage and twelve or more detached lobulated bits of cartilage. There were also similar detached nodules of cartilages in the axilla. The limbs, in fact, of the higher animals may have therefore dormant germs of the ancestral rods of cartilage; indeed, cartilage cells have been found in the synovial tufts of some joints. From such centres some of the above-mentioned cartilages had apparently developed. Supernumerary fingers have been referred to the multifid condition of the rays of the selachian fin. New formations of capillary vessels are generally congenital, and they are much commoner in the skin of the head and neck than elsewhere. These facts might suggest the possibility that they bear homologous relations to the vessels which develop about the epiblastic involutions lining the visceral arches of the lower vertebrata. Dr. D. A. Gresswell recently saw a nævus, the distribution of which seemed to afford some corroboration for such a speculation concerning the homology of nævi. It extended in a snake-like form down the right side of the neck; it was distinctly raised, and it passed with a tapering extremity into the external auditory meatus, down which it extended for a considerable distance.

It will be seen that the view which Dr. D. Astley Greeswell pointed out, but which we now wish to lay stress upon, is that one of the primary properties of cellular organisms was that of multiplying by processes of fission and gemmation. This characteristic, originally possessed by independent units, is still, in greater or less degree, a feature of those units which, when combined in various ways, make up the tissues and organs of higher forms of life. At times, and under special circumstances, which, in the present state of our knowledge, in many instances can only be roughly traced, this ancestral tendency of the cells to divide and multiply on their own account shows itself once more with something of its old vigour, and then new formations of various kinds result. When the bloodvessels are invaded by pathogenic micro-organisms, may it not be that, as previously pointed out, a kind of warfare, so to speak, goes on between the blood cells and the vegetal germs, and that when the latter gain the victory the man or the animal dies: whereas in cases where the blood-cells possess the power of strong resistance, the sufferer also withstands the deadly effect of the foe? In some instances, then, the fertility of cells in the way of reproduction would be highly servicable to the man or animal, while in others such power of multiplication is manifestly most destructive. Is it not a great question if we should not, in our investigations of disease, search most diligently into all these conditions which would enable us both to control and to facilitate the growth and multiplication of cells?—*A. Gresswell in Lancet.*

THE CLIMATE OF COLORADO SPRINGS FOR THE PHTHISICAL.

A gentleman who had tried the favorite resorts of Europe and America, describes the advantages of Colorado Springs as follows in the *New York Tribune* of May 22, 1887:

No climate is absolutely perfect, so I shall first call attention to the only blemish in the climate of Colorado Springs. We have some wind and, at times severe wind, yet the number of days when an invalid is compelled to remain indoors on account of strong wind is not more than the number he is compelled to spend indoors at Davos, in Switzerland, on account of the falling of snow. Furthermore, if an invalid finds the wind objectionable he can readily escape it by changing to Manitou Springs (ten minutes by rail), which is even more sheltered than Davos.

Now as to the advantages of Colorado Springs:

1. Its altitude is six thousand feet above sea level. To the north the land rises gradually, thickly wooded, to the height of 7,500 feet. Six miles to the west runs a spur of the Rocky Mountains culminating in Pike's Peak, 14,200 feet high.

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Thus the city is sheltered to the north and west, and is open to the south and east. 2. The sunshine is almost uninterrupted. During the winter there is no rain, no cloudy or foggy weather, and hardly any snow. Snow falls very rarely, and when it falls it disappears quickly and almost miraculously, leaving neither mud nor dampness behind. 3. As the city lies open to the east and the higher mountains to the west are at some distance, the daily duration of winter sunshine is very great—fully forty per cent. greater than at Davos. 4. The character of the soil is porous. This is a very important advantage. If rain or snow falls at Denver, for example, the result is mud, and mud means continued dampness. There is no mud at Colorado Springs. 5. The invalid is not restricted to hotel life. Boarding-houses and furnished houses abound. Housekeeping, owing to the presence of a large number of very superior stores, is made easy. Should the invalid prefer hotel life, he will find the hotels first-class, but be it said that no American hotels are so carefully managed as to comfort nor so particular as to ventilation as are the hotels of the Riviera or of Davos. 6. There is nothing of the hospital character about Colorado Springs. Of its 7,000 inhabitants, many never were sick, and many who once were are now perfectly cured. The invalids are scattered to such an extent, there are so many amusements and points of interest to disperse them, that one never feels the depressing influence of being in a great consumptive hospital. 7. Amusements are very plentiful. There are few cities in the world that offer such a variety of beautiful rides and drives. Invalids are out riding or driving nearly every day in the year. Many people of wealth and culture reside here, society is pleasant and clubs of all kinds abound—social clubs, reading clubs, musical clubs, fox-hunting clubs, etc. An invalid here has neither time nor disposition to mope. 8. One of the objections I found to Davos and the Riviera was that when spring came the patient was chafing to get away. I do not find this at Colorado Springs. Nor is it necessary. The summer climate is just as healthful and just as exceptional as the winter climate. In fact, the reputation of Colorado summers brings thousands of tourists here every summer. The days are warm, not uncomfortably so, and the nights are always cool enough to make a heavy blanket necessary. Some invalids go up into the beautiful near-by mountain parks (8,500 to 10,000 feet high), and live at a farm house or camp out. Some change to Manitou Springs and enjoy witnessing the summer gayety. The majority remains here and are equally benefited. 9. If a patient feels disposed to make a change during the winter, he has a large choice of places which he can visit with safety. He may go to Denver or to any of the towns between Colorado Springs and Pancha Springs inclusive. This belt of territory is all favored with an exceptional climate. On the other hand, if an invalid finds that the climate does not agree with him, he can travel hence to Southern California quickly and comfortably.—*Med. News.*

OPERATIVE TREATMENT OF EMPYEMA OF THE ANTRUM OF HIGHMORE

In the *Archiv. für. Klin. Chirurgie*, is a full report of a paper on a new method of dealing with empyema of the antrum, read by Professor Mikulicz, of Cracow, at the last meeting of the German Surgical Society. The indications to be fulfilled in the treatment of this condition are, it is stated, clear and simple. In every case it should be the surgeon's endeavor to make an artificial opening in the cavity, and to maintain this opening until suppuration has been completely arrested. The methods which establish an opening into the antrum by the mouth have two advantages. The cavity is thus perforated at a convenient and accessible spot. The surgeon can readily apply his instruments, and the after-treatment can be conducted under the control of both his eyes and fingers. Moreover the perforation is well situated for the flow of pus, and corresponds to the most dependent part of the antrum. There are, however, certain disadvantages attending the operation by the mouth. Suppuration in the antrum often persists for a long time, it may be for months or even years, and it is necessary to maintain the opening until the discharge has closed. This is not an easy matter, as there is always a tendency for the opening to contract and close, unless a stiff drainage-tube be worn. Free communication between the antrum and the mouth is attended with inconvenience, and portions of food and other foreign material may pass through the opening into the cavity, decompose there, and set up fresh suppuration. In consequence of these objections to the oral operation, attempts have been made to open up the antrum in another direction. An objection might be made, it is pointed out, to the old operation on physiological grounds. The antrum has not any normal connection with the mouth, but it is to be regarded as a pneumatic appendage of the nasal cavity with which, in a healthy condition, it has free communication. If this communication be shut off in consequence of any pathological process, that operation would seem to be the most rational that serves to re-stablish the normal condition. The author is opposed to any method of attempting to reach the antrum through the middle meatus. It would, he states, be found very difficult in such attempt to open up the antrum and afterwards to inject the cavity. Besides, the perforating instrument would be brought into

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dangerous proximity to the orbit, which cavity is separated from the nose by only a thin plate of bone. Again, an opening in the middle meatus would be most unfavorably situated for the discharge of a large accumulation of pus. The author advocates an opening made from the inferior meatus. The osseous septum between the portion of the nasal cavity and the antrum is very thick and dense near the hard palate, but soon becomes reduced to the thickness of paper, and may be readily perforated by a stout cutting instrument. For this purpose a short double-edged knife, or rather cutting stylet, set on a curved shank, has been devised. This is introduced along the inferior meatus, until it reaches the inferior turbinated bone, when its point is turned outwards and thrust through the septum into the antrum. The opening having been enlarged by to and fro movements of the instrument, the elongated and curved nozzle of a specially devised elastic bell-syringe is introduced, and the cavity of the antrum is washed out. This operation, which proved successful in two cases reported in this paper, is not likely, it is asserted, to be attended with any difficulty except in cases of abnormal narrowness of the inferior nasal meatus, of extreme hypertrophy of the inferior turbinated bone, or much thickening of the osseous septum between the antrum and the inferior part of the nasal cavity.—*Lond. Med. Rec.*

CHIAN TURPENTINE IN THE TREATMENT OF CANCER.

Dr. John Clay, of Birmingham, England, writes as follows concerning the administration of Chian turpentine in cancer:

"Success in the treatment of cancer by this drug depends upon: 1, the mode of its administration; 2, the stage of the disease; 3, the complications by which the growth is attended; 4, the persistence of the treatment. The idiosyncracy of the patient will also influence more or less the rapidity of action of the drug; in one case the good results will be apparent in two or three weeks, while in another it will be as many months before the external appearances will give evidence of any beneficial action. If there is no perceptible increase in the growth in the course of two or three months, it may be relied upon that the drug is exerting a beneficial action, and other things being equal, the ultimate success of the treatment will depend upon the perseverance in its continuance. Everything depends upon the purity of the drug, for there is an immense amount of adulterated and fabricated stuff in the market. There is *prima facie* evidence of the genuineness of the gum if no violet odor is communicated to the urine, and if no skin rash or cutaneous eruption is manifested after the lapse of a few weeks. The external application of a chromic acid solution (twenty or thirty grains to the ounce of water) to a cancer in a state of ulceration is sometimes useful. The following is the formula for preparing the mixture, as published by the dispenser to the Queen's Hospital, Birmingham: 'An etheral tincture is first made by mixing equal parts of Chian turpentine and ether, and shaking frequently in a well-corked bottle until all soluble matter is dissolved. An emulsion is then prepared in the following manner: Place in a large mortar two hundred and forty grains of powdered acacia, and fifty grains of powdered tragacanth, and one ounce of the tincture of Chian turpentine, mix, and add, all at once, a fluid ounce of water, triturate until an emulsion is formed and then dilute gradually up to eight fluid ounces. Two fluiddrachms will contain seven and a half grains of the pure drug—the initial dose. All trace of ether must be removed by exposure in an open vessel, preferably in the cold.'

"Those cases are most suitable for treatment in which the disease affects the skin or mucous surfaces, and the earlier the treatment is begun the better is the chance of success. When the lymphatics are extensively involved, or when the disease has invaded the peritoneum, pleura or vagina, the drug can be recommended merely as a palliative. In cancer of the uterus or rectum, if treatment has not been begun very early, disease of the kidney (not necessarily of a malignant character) is apt to arise. If this condition becomes manifest, the action of the drug will require careful watching, and it may be necessary to abandon it altogether. It is advisable, after the medicine has been taken for two months, to omit it for two days in each month, beginning again with it in the same dose that was given at the time of its discontinuance. Opium, in large doses, is antagonistic to Chian turpentine and should only be given when absolutely necessary because of severe pain, and then only in small doses—about seven minims of the tincture incorporated in the mixture.

"The combination of resorcin with Chian turpentine (two drachms to eight ounces of the above mixture) is sometimes beneficial. The mixture is given in doses of one teaspoonful in cold milk three times a day after meals, increased in two weeks to two, and in two weeks more to three teaspoonfuls. Its administration is to be persevered in for a long time. Too speedy results are often expected from the remedy, and hence it may be abandoned too early before it has received a fair trial. If the disease seems to be arrested at the expiration of a few weeks, it is quite sufficient to justify a continuance of the drug.

"After the arrest of the disease the remedy must be continued until some obvious change takes place, and it must be administered continuously in increasing doses, under any circumstances, even if some apparently discouraging conditions arise."

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Dr. Clay adds some remarks concerning the administration of the remedy in individual cases, which, however, we are obliged to omit on account of the pressure on our columns.—*Medical Record.*

MEDICAL NOTES.

The *subiodide of bismuth* is now being much used as a local application at the hospitals, instead of iodoform.

There are only two remedies which have the power of causing involution of *uterine fibroids*—electricity and ergot.

The best preparation of *aconitine* is Duquesnel's. It is three times more powerful than any other preparation in the market.

Of internal remedies for *hemorrhage of uterine cancer*, Prof. Parvin states that probably one of the best is the infusion of cotton root.

In *constipation* caused by a deficiency of excretion, secretion and muscular power, a capital addition to a purgative pill is physostigma.

For flushings and other morbid sensations occurring about the *climacteric period*, Prof. Bartholow prescribed a three grain pill of iodoform, ter die.

The best remedy for relief of, but which cannot cure, *paralysis agitans*, is hyoscyamine, gr. $\frac{1}{100}$ twice a day. Do not produce the active effects of the drug.

A case of *infantile eczema* was recently shown at the Jefferson College Hospital clinic, which had been treated locally with a solution of resorcin, with very beneficial results.

For *spermatorrhœa*, characterized by a lack of vigor in the erections, due to a want of tonicity of the vessels, give digitalis; may be advantageously combined with the bromides.

For *dysmenorrhœa*, Prof. Bartholow advises the inhalation of amyl nitrite for the attacks, and during the intervals the internal administration of the one per cent. solution of nitro-glycerine.

Prof. Da Costa strongly recommends gallic acid in *hæmoptysis*, but advises it to be given in doses of gr. xv-xx every fifteen minutes "until the blood turns black." It is of no use whatever in small doses.

For *mitral stenosis*, Prof. Bartholow advised that caffeine in gr. iiij doses be given three or four times daily; to improve the general nutrition, gtt. j-v of dilute nitro-glycerine, to determine the dose by the effect.

For *diarrhœa* coming as a desire to stool after eating, with thin and watery discharges, Prof. Bartholow ordered the following: Two drops of Fowler's solution and six drops of the deodorized tincture of opium three or four times daily. Put on exclusive milk diet for a short time.

Prof. Bartholow thinks for beginning *pneumonia* up to stage of exudation, nothing is better than a combination of tinct. aconiti and tinct. opii. gtt. v of the former, and gtt. viij of the latter, as an initial dose, followed by, respectively, gtt. ij-iij of each every hour, or according to the effect produced.

For *diarrhœa* of three months' duration, characterized by a desire to evacuate the bowels immediately after eating, Prof. Bartholow advises the following plan of treatment: Put patient on a milk diet as far as possible, also—

℞ Creasoti . . . . . ℥ij
Bismuthi subcarb. . . . gr. x-xv
Glycerini . . . . . f℥ss. M.
Sig.—Ter die, before meals.

Col. and Clin. Record.

THE TREATMENT OF ECZEMA.

The diagnosis of eczema is comparatively easy. If we except acne, it is the commonest of all the cutaneous diseases. It includes about one-third of all cases of skin diseases that come under treatment. It seems to be more frequent in this country than abroad, Hebra making it about 16 per cent. of all the cases treated at Vienna. Eczema is remarkably protean in its manifestations, showing itself under the most varied forms; at one time it appears as an erythema, and at another time takes the vesicular form. Also remember it is the only weeping skin disease—not in the sense that an excoriated surface weeps, but as part of the pathological process of this disease, by an excessive exudation of liquor sanguinis, which cannot be consumed in supplying loss, which remains over and infiltrates the cutaneous structure. The squamous or dry form is mistaken for psoriasis, a squamous syphilide, etc. Seborrhœa also is often mistaken for eczema. It is true the two diseases often present the same or similar appearances as they occur on the scalp. They do often exist together, or one is the sequel of the other. Eczema of the scalp is, as a rule, seated on a circumscribed spot, while in seborrhœa the scales cover the whole scalp. In cases of doubt, care should be taken to obtain the history, etc., and then a correct diagnosis can easily be made.

In considering the treatment, only an outline can be given. To enter upon the subject more fully would be to furnish subjects for an indefinite number of meetings. Eczema is a perfectly curable disease, provided the cause is sought for and remedied. In the acute form care should be taken not to over-treat. The great tendency is to ad-

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minister arsenic, and apply a stimulating ointment, and then trust to nature for the cure. If nature had been let alone, or, better, aided by using some bland protective ointment, and a brisk cathartic internally, she would have brought about the cure much sooner than she would when stimulated almost to the point of irritation. We often find eczema accompanying digestive troubles. In these cases the diet should be plain and nutritious, and some tonic be used. I prefer tincturæ nucis vomicæ, combined with some of the simple tonics, such as gentian or cinchona. Although in direct opposition to the teachings of the books, I have seen arsenic do a great deal of good in the eczema of dyspepsia. I think the best plan is to give small doses and very gradually increase—say, two minims of the liquor potassii arsenitis, increased to five, and then return to the original dose. Arsenic is a drug which has caused a great amount of discussion. While it is the dermatologist's sheet-anchor, it may be misused. It was pretty clearly brought out by the recent discussion, by both dermatologists and general practitioners, that arsenic was, in the majority of cases, a very successful and safe drug to employ, provided the physician took care to watch the effect, etc. The habit of prescribing arsenic in all cutaneous diseases can not be too strongly denounced, and I think the majority of text-books and lecturers are to blame for not teaching the student and doctor how to make distinctions between those cutaneous diseases which are benefited by arsenic and those which are not. In children which appear healthy, but are fat and flabby in texture, fed, as a rule, on food containing quantities of starch, and who are allowed to "drink all the tea and coffee they want," and other unwholesome food, I have seen eczema which had resisted all other treatment heal up almost by magic under a corrected diet, a brisk mercurial cathartic, and a bland protective ointment applied to the affected parts. The cure is explained by looking at the etiology of eczema in this class of patients—namely, a congested skin produced by a circulation, or a torpid state of the bowels, which we relieve by curing the constipation and restoring tone to the circulation. After this introductory treatment, I give directions regarding food, and often give tonics—such as cod-liver oil and some form of iron, preferably the syrup ferri iodidi. In young children, and persons having tender skin, care should be taken not to use an ointment too stimulating. I have a case in mind now where an ointment of the red oxide of mercury was used for a simple eczema, which caused a severe pustular eruption. When the ointment was changed for a simple protecting application, the eczema soon improved, and the child became well. I have seen several cases of eczema resulting from that much-advertised "skin success," which I believe is composed of the red oxide of mercury, some preparation of tar, and vaseline. For the removal of crusts in cases of eczema of the scalp, some oil should be used, either olive, or raw linseed-oil being the best. In scrofulous subjects you may use cod-liver oil with the hope of good results from the absorption. If there are pediculi along with the eczema, crude petroleum is useful for destroying the parasites.

A good application for local eczema in children is to apply the ointment in the form of a plaster. Unna, of Hamburg, uses an application called "Salbenmull," consisting of sheets of thin cotton material incorporated with various kinds of ointments; he also uses one somewhat similar, various medicaments being spread on gutta-percha tissue instead of cotton sheeting; the advantage of this over the former is, that the gutta-percha plaster will adhere to the part without the use of a bandage. The most obstinate cases to treat are those of old, dry, rheumatoid eczemas, found, as a rule, on the limbs of old people. My plan in these cases is to give plenty of salines, unless the heart is weak; if such is the case, caution should be observed, for by giving too much alkali we may produce a state of superalkalinism which may assist to a fatal result. A very good plan to observe in giving salines to old people is to combine them with digitalis. I also give tonics, such as iron, quinine, etc., and if there are symptoms of rheumatism, it is well to give, in addition, iodide of potassium and colchicum. Externally, I first remove the crusts or scales, which may be done with green soap, the liquor picis alkalinus of Bulkley, or hot poultices; my preference is for the poultice. The heat and moisture seem agreeable to the hot, tense skin, and the patient will express himself well pleased with the treatment. After all the crusts are removed, and we have a clean shining surface, apply an ointment, stimulating or not, as the case would suggest. An ointment which I have found well adapted, when stimulation was required, is composed of the following:

℞ Hydrarg. chlorid. mit. . . gr. xxv.
Olei cadini . . . . . ℥ xx.
Unguent. zinci ox. . . . ʒ j.
M. Ft. unguent.

Oleate of mercury may be substituted for the calomel, about a drachm of the five-per-cent. to the ounce. One of the most distressing symptoms is the intense itching, which may be relieved by the addition of iodoform to this ointment, or, if the disagreeable odor of iodoform is objected to, iodol, a new preparation from iodine, may be substituted with equally good results. I have seen the compound tincture of benzoin, prepared and applied as recommended by Professor Sherwell, of the Long Island College Hospital, allay the itching when all other applications had failed. Dr. Sherwell's directions are to evaporate the tincture to

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three-fourths its bulk, and paint this over the eczematous spot. I am not in favor of the heroic plan of treatment, such as blistering with cantharides, carbolic acid, or iodine. I think just as good results can be obtained by employing milder stimulants, and if the desired effect is slower, you will be amply repaid by not causing your patient unnecessary pain and discomfort. When eczema is complicated with varicose veins, a rubber bandage applied closely to the part has a decided curative effect, due, no doubt, to the support given to the enlarged veins, restoring, or rather correcting, the circulation in that particular part. There are two or three questions regarding which the physician must first of all satisfy himself. One is: What is the internal cause, if any? Another question: Is the disease acute or chronic? and third: What stage is it in? When these questions have been answered, the proper method of procedure will at once become apparent. The German plan of treating the external manifestations of the disease alone has many things in its favor and some against it. It is very well in cases of doubt to direct attention to the visible lesion, and await developments for light on the internal trouble. The other extreme, which the French school teaches, of attributing the disease to the so-called diathetic cause, is open to as many objections. But the unfavorable features in either system have been very successfully remedied in the English, or more particularly the American, method of taking the safe middle ground of combination, and uniting both the internal and external plans, and so bringing about results which I think will be found to be far more brilliant than if only the method of either of the European schools is strictly adhered to. I trust that, with the ever-increasing facilities in the American medical schools for the successful study of skin diseases, the day is not far distant when the general practitioner will be able to diagnosticate and treat these troubles just as skilfully as the specialist; and eczema in its protean forms will become one of the least, as it is now the greatest, of all the cutaneous diseases.—Dr. Winfield, in *N. Y. Med. Jour.*

MANAGEMENT OF THE SICK ROOM.

It is so generally the custom of medical men to leave the management of the sick room to the friends of a patient or to nurses, that it seems to be almost forgotten that this is, in a remarkable degree, a professional duty. "Treatment" does not consist wholly, or, indeed, chiefly, in the administration of drugs. The surroundings of the sick are not less important as agents of cure than the medicines given to them. Indeed, we will go so far as to say that in the best and most physiological methods of therapy, drugs are only admissible as *aids* to the arrest of disease and the recovery of health, which Nature will accomplish if only the case be so conditional as to remove obstacles out of her way, and facilitate the processes whereby she is working. The scientific therapeutist regards the placing of his patient in circumstances favorable to convalescence as the first and most urgent step to take, and it is therefore impossible for him to look upon the management of the sick room as of trival or even subordinate importance. We have no thought of attempting to determine the particular conditions required for the recovery of the sick. Obviously these can only be indicated by the needs of each patient. We believe one and all *systems* of management must be open to the fatal objection, that they do not deal directly with the lesser needs of the individual; and these lesser needs are in practice the most important. The point on which we are especially anxious to insist is, that the practitioner ought to make the management of the sick room his most solicitous care. To relegate this part of his duty as a minister of health to a nurse, however skilled, or friends, however intelligent and solicitous for the welfare of the patient, is to surrender to others a power which may be either wasted or applied obstructively, with the best of intentions; and simply because, being dissociated from the exhibition of drugs, the management of the sick is no longer felt to be what it really is—namely, an integral and elementary part of treatment.

To manage the sick room wisely and efficiently, the practitioner must be so thoroughly versed in all the details of nursing as to be able himself to do, if necessity arises, all that he expects of others. The best illustration of what we precisely mean, may be found from the position of a captain commanding a ship in a storm. He not only possesses a general notion of what ought to be done, but he is practically acquainted with every rope, spar and sail in the vessel, and he could, if it were physically possible, perform the whole duty himself. He can supervise, because he has himself passed through every grade of seamanship, possesses the knowledge of *how* things are to be done, as well as what to do in the circumstances. Now, we greatly fear that anything approaching this practical familiarity with the details of the duty devolving upon a medical practitioner as a minister of health, is rare, and daily becoming increasingly difficult to find among the most advanced and theoretically competent workers in our profession. Division of labor is no doubt a necessity of progress, but we cannot regard without uneasiness the erection of nursing into a specialty, separate from, and in a large measure independent of, treatment. The profession is not, we think, aware of the magnitude of the sacrifice it is making, in allowing this province of the art of healing to pass

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out of its grasp. The development of nursing as a craft, has grown out of the neglect with which that function has been too long treated by those who ought to be its principal promoters and directors. The condition of matters exposed by Charles Dickens in connection with his personification of the old-fashioned nurse as "Sairey Gamp," did permanent service; and the nurses of to-day are confessedly as superior to their predecessors of forty years ago, as the medical men of the present time are better provided with instruments of precision, and more skilled in the knowledge of both health and disease than those of the last or a previous generation. Nevertheless, we cannot but feel that against this grain to the interests of good management in the sick room must be reckoned the very grave fact that the most erudite and expert of our cloth to-day are incomparably, and almost of necessity, less able to direct and control the conditions of the sick than the practitioners of a time when the average attainments of the scientific physician or surgeon was immeasurably less considerable than those of the least advanced and accomplished of our contemporary doctors. There is no marvel in this fact, because nowadays the details, and much more than the details, of the art of nursing are left to a class of persons who, whatever their devotion or intelligence may be, are certainly not qualified to take the position of medical practitioners.

It is not with any degree of disrespect to the class of skilled nurses that we protest against the growing evil of surrendering a large and most potent part of the art of healing to those who are not in a position to master it. No lasting success can possibly attend the separation of nursing from medicine. The doctor who does not himself direct the nursing of his patient in all its details cannot be held to have control of even half the appliances of cure, and, for anything he can tell, the manner in which his patient is treated during the intervals between his visits may be such as though admirable in themselves, must prove antagonistic to his own method and policy. We are not now thinking of the disastrous effects of bad or even careless nursing, but of the very best that can be procured. Nursing ought to play a leading *role* in treatment, and therefore it should be one of the first considerations of the practitioner. His should be the guiding hand in everything that concerns the sick, and to this end his authority and influence should be paramount. A great point is gained when it can be said of a practitioner that when he appears on the scene he takes not only general but specific control of the whole management of the case, and personally directs every detail. In no other way can perfect unity of aim and policy be secured. It may be argued that the busy practitioner has no time to spare for thus entering into matters; or that he descends from a high professional position when, for example, instead of contenting himself with simply ordering a poultice, he takes pains to ensure that it shall be properly made. How strangely erroneous such notions as these really are will appear when we reflect that the most successful practitioners have been, and still are, those who possess, and do not scruple to supply, the most minute acquaintance with the art of nursing—a knowledge for the most part either acquired by painful experience in their own families or obtained by years of observation and practice in the wards of hospitals where homely rather than ornate systems of nursing were in operation. It must be frankly confessed that we do not see how the students of to-day are to learn the art of nursing in such a way as to render them really able and useful practitioners in private families, seeing that the management of the sick chamber is an art and mystery studied and practised by a separate class of non-medical persons, who cannot share the practitioner's responsibility. —*Lancet.*

THERAPEUTIC EFFECTS OF SEA AIR.

The practice of a more or lesss prolonged stay at the seaside in the summer is one of very ancient date, if we regard only the wealthy and leisured classes, but its general adoption is a more modern habit. The Roman noble sought refuge from the summer heat of Rome at Baiæ and Paestum, but he was not followey thither by the trader or farmer, and still less by the artisan and mechanic. In modern times, however, almost all classes, except the very poorest, participate, more or less, in the custom of seeking to exchange for a time the heavy and vitiated atmosphere of large cities for the refreshing breath of ocean. It is worth while to inquire the *rationale* of this custom, the benefits to be expected from it, and the classes of individuals to whom it is especially applicable. We have, first of all, to take into account the simple element of change. Monotony of occupation and diet is, in the long run, injurious to the organism; and change of air operates beneficially by inducing change of habit and of food, and by turning the current of life into fresh channels. It is not desirable that such a change should be from one extreme to another, such as from a very damp and relaxing atmosphere to a dry and stimulating one, or from a confined and sedentary life to one of boisterous activity. By such extreme changes the system is apt to be overtaxed, and, instead of renewal of health, too often the result is disturbance of sleep and digestion, and the induction of nervous exhaustion.

But the resort to the seaside means much more than mere change of air. It involves the exchange

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of a more or less vitiated atmosphere for one of almost perfect purity, and the substitution of tonic and bracing conditions for those that are usually relaxing and depressent. Sea air is free from all sources of organic contamination ; it possesses much ozone, and traces of bromine and iodine. Hence, it is highly tonic and alterative, if we may still use a somewhat objectionable term, for which we are yet without any satisfactory substitute. The air at the seaside is also in almost constant motion ; and this factor has its influence in increasing the tonic and bracing effect. In favorable cases, sea air produces a marked augmentation of appetite, increased desire for sleep, and a proportionate improvement of nutrition. These three factors are usually closely associated, and the effect of sea air may be accurately gauged by its influence upon appetite and sleep. The increased drowsiness at the seaside is often, for a time, accompanied by a feeling of agreeable languor, which usually gives place to one of renewed energy. The purity of the air, the presence of ozone, and the stimulation of appetite, afford the requisite conditions for improved sanguification ; while the fresh air life and habits of healthful activity tend to the improvement of muscular and nervous tone.

Thus, in a very large proportion of cases sea air is beneficial. It suits especially those who are organically sound, and merely exhausted by excessive work or prolonged confinement in impure air. It affords the desired fillip to the energies of those who require a little recuperation for the performance of fresh labors. In most cases it is admirably adapted to the needs of children, who delight in the fresh atmosphere, the easy, careless life, and the facilities for out-of-door amusement. We may lay down, in general terms, that sea air suits the majority of people who are in average health, and tends to promote the increased well-being of those who are already well. Its application to cases of disease is more difficult and disputable. That sea air is, in many cases, an admirable restorative and a powerful means of changing morbid action, and hastening convalescence, is undoubted ; but as little can it be denied that it is often improperly recommended and fruitful in mischief. The chief therapeutic effect of sea air is its stimulating property ; and in considering its application to disease, the first point to be determined is whether the patient is in a condition to bear stimulation. Many diseases require soothing rather than stimulating ; and, in such cases, sea air is contraindicated. Thus, in all cases of nervous excitement, hysteria, and allied conditions, the desideratum is to quiet nervous action rather than stimulate an activity which is already abnormal. Here sea air is likely to do nothing but harm, and should be avoided.

Again, in convalescence from acute disease, it is always a nice point to determine when the patient has rallied sufficiently to be able to react to the stimulation of sea air. In retarded recovery from typhoid fever, pneumonia, and other acute specific maladies, few things are more worthy of the nicest consideration of the practitioner. On his accurate diagnosis of this point will turn his decision, whether his patient should continue the rest and quiet of his home, or try to hasten recovery by recourse to the seaside. Two points seem of special importance in the determination of this question—viz., temperature and the condition of the nervous system. If the temperature be normal, and the nervous system fairly quiet, sea air may reasonably be expected to operate beneficially. If pyrexia and nervous irritation be still present, it is very apt to promote a recrudescence of disease.

There are some constitutional conditions which bear stimulation well, and these may be expected to benefit decidedly by resort to the seaside. Of such cases, struma affords the best instance in point. Rickety children may also be confidently ordered to the seaside, as statistics show that rickets is relatively rare at marine localities. In hereditary predisposition to phthisis, sea air seems almost uniformly beneficial. Many people suffer from disordered hepatic action at the seaside, and some cutaneous affections, especially eczema, are aggravated by sea air. These facts point their own moral. In all cases where sea air seems too stimulating, its exciting action may be reduced by choosing a residence that does not face the sea, by taking inland walks, and by abstinence from bathing.—*Brit. Med. Jour.*

ZIEMSSEN ON COLD WATER TREATMENT OF TYPHOID.—The *Journal of the American Medical Association* for May 14th contains a full abstract of a lecture on Antipyresis and Antipyretic Methods by Professor Ziemssen, director of the Medical Clinic of Munich, especially in regard to typhoid. The lecture is very interesting and earnest. It claims a high value for the treatment by baths, and expresses a hope that after the favorable results of active antipyresis, physicians will not lapse again into the therapeutic indifference of the Vienna School. Of all antipyretic measures Ziemssen considers hydrotherapy the chief : first, because it combines in itself all the attributes of a remedial measure ; and, secondly, because its action on the fevered organism may be varied to any degree. The benefit of such treatment is not confined to typhoid, but is also to be noticed in other febrile diseases, such as pneumonia, erysipelas, and acute phthisis. The cold and lukewarm baths act, he thinks, by cooling the blood at the periphery, the vital fluid being returned to the internal organs with an indescribably pleasant as well as beneficial effect. Sleep is favored. There is an improvement in digesting, so that the patient can be fed better. On the circulation the effect is to con-

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tract the peripheral vessels, the heart works more slowly, the vessels show an improved tension, dicrotism is decreased, and the elasticity elevation returns. The respiratory apparatus is excited by the peripheral irritation to deeper and slower movements, cough is more effective, and in this way bronchial obstructions and consequent atalectasis and catarrhal pneumonia are better avoided than by the impracticable advice to turn a fever patient on his side. Ziemssen gives two or three statistics to show the effects of the cold and the lukewarm bath treatment respectively. He takes his illustration of the strictly cold bath from Vogl, physician to the Garrison Hospital at Munich. He gives (with a rectal temperature of 102·2° F.) a cold bath at 63·5°, lasting a quarter of an hour, about every three hours, winter and summer, in unheated rooms, with windows open day and night. This is bold treatment, and for soldiers (for the most part with young and picked lives) does well. There were only 52 deaths in 610 cases, or 5·4 per cent. Murchison gives the mortality of typhoid in the London Fever Hospital, after deducting cases which died within forty-eight hours of admission, at 15·82 per cent. Ziemssen compares Vogl's practice with strict cold water treatment with Naunyn's in a civil hospital, who, with an axillary temperature of 103·1°, taken every three hours, gives usually eight baths in twenty-four hours, generally between noon and midnight, at a *not lower* temperature than 72·5°. He divides baths into *cold* (72·5° to 81·5° F.; duration, five to ten minutes), *lukewarm* (from 81·5° to 90·5°, ten to fifteen minutes) and *warm* (90·5° to 95°). The warm are given in the later stages in very active delirious patients with great restlessness and muscular weakness. By this treatment Naunyn lost 10 of 145 cases, or 6·9 per cent., "certainly a favourable percentage." Ziemssen himself says that for twenty years he has recommended, for private practice, the gradually-cooled bath. The patient is placed in a warm bath of 90·5° or 86°. The water is continually poured over him with hands or sponge. While this is being done, cold water is very slowly poured in at the foot of the bath tub, and the water reaches gradually a temperature of 77° or 72·5°, until the patient's teeth chatter, or he declares he can stand it no longer. He is then taken out and placed in a blanket previously warmed, and wrapped in it without being dried. In this he remains in the greatest comfort for fifteen minutes, is then rubbed dry, and allowed to sleep. Ziemssen, like a wise physician, recommends the study of the peculiarities of individual cases. While lauding the bath treatment, he speaks respectfully of antipyretic drugs.—*Lancet.*

PERIPHERAL NEURITIS.—In discussing this subject in the *Brit. Med. Journal*, 1887, p. 6, Ross says that the symmetrical manner in which the disease usually attacks the body shows that at least in the majority of cases it is produced by some poison in the blood. Thus salts of lead, arsenic, and probably of copper and other metals are capable of giving rise to it. In a second group of cases the disease is caused by alcoholic excess, the fumes of bisulphide and oxide of carbon, and probably by the abuse of chloral and chloroform. It has also been observed in advanced diabetes. A third variety arises from animal poison. Diphtheritic paralysis is the best known instance of this. It is also to be observed in syphilis, smallpox, scarlet fever, measles, typhoid, typhus, intermittent fever, dengue, tuberculosis, leprosy and beri-beri. It is probable that it may be caused by rheumatism, and that the wasting of the extensors seen in chronic rheumatoid arthritis is due to a neuritis of the neighbouring nerves. There is also an *idiopathic* multiple neuritis.

The symptoms consist in more or less widely distributed atrophic paralysis. Ross has never been able to assure himself that active spasm preceded the paralysis in any case. The condition of the cutaneous reflexes varies. With a very few exceptions, the patellar reflex has been wanting in all recently reported cases of alcoholic, diphtheritic, and other forms of neuritis of the lower extremities. The knee-jerk is sometimes absent in lead poisoning, even when the muscles of the lower extremities are not appreciably involved. Yet the failure of the patellar reflex is a valuable but not an absolute sign of neuritis. The electrical test affords conclusive evidence in the majority of cases. The faradic excitability of the affected nerves and muscles is lessened or abolished, and the reaction of degeneration is detected with the galvanic current. The paralysis affects especially the extensors, as is well seen in the "wrist-drop" of lead palsy. That following alcohol, bisulphide of carbon, the animal poisons, and even arsenic, usually attacks the extensors of the lower extremities first. Paralysis of the extensors of the forearm soon follows in alcoholic neuritis, then the thighs and upper arm, then the flexors of the leg and forearm, and finally even the muscles of the trunk may become involved. In diphtheritic paralysis the soft palate is the first to be affected; then the muscles of the eye, and after some time the lower extremities. The arms are seldom involved. The paralysis of the extensors in neuritis produces a temporary or permanent flexion of the limb, simulating a spasm of the flexors. The sensory disturbances accompanying the paralysis resemble considerably those of locomotor ataxia. The disease may most easily be confounded with chronic poliomyelitis, Landry's paralysis, and locomotor ataxia. From the first it is distinguished by the presence of well-marked sensory phenomena, and by the order in which the muscles are attacked.

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From the second it differs in exhibiting the reaction of degeneration with marked sensory disturbances and wasting of the muscles. From the third it differs in many respects, but the character of the gait is sufficient to distinguish it. We observe, namely, in neuritis a peculiar elevation of the knee in walking, with a drooping of the toes, and an unusual exposure of the sole of the foot to one standing behind the patient Such a case is unable to elevate the toes if sitting on a chair with the soles flat on the floor.

As regards the pathological anatomy of the disease, the author shows that opinions are now generally agreed that the lesion is seated in the nerves themselves and not in the cord.—*Am. Jour. Med. Sciences.*

THE TREATMENT OF TUBERCULOSIS OF THE JOINTS BY ACID CALCIUM PHOSPHATE.—At a recent meeting of the Society of Physicians of Vienna, Kolischer, of Vienna, exhibited four cases of tubercular joints, three of which had recovered, while the fourth was in proceess of recovery, under a method of treatment which he had recently introduced, which aimed at the destruction of tubercle bacilli and the induction of calcification in tuberculous matter, in imitation of the process often observed in healed lung cavities. It is supposed to act by producing a mild grade of inflammation and cicatrization which destroys tuberculous matter. The method consists in the injection into the diseased joints of a solution of acid calcium phosphate, whose strength and dosage are not reported.

In one class of cases a prompt inflammatory reaction followed the injection, lasting from four to seven days, and was succeeded by a period of calcification which continued from two to four weeks, ending in absorption; the final result was a restoration of the contour of the joint. In the other class of cases—those in which cheesy degeneration was rapidly progressing—injections into the joints were followed in about a week by the breaking down of tubercle and the rupture and discharge of the abscess; and healing by granulation resulted promptly. Cicatrization of tuberculous ulcers and separation of necrosed bone were readily cansed by the solution. Tuberculous fistulæ and cavities were tamponed by gauze saturated with the solution

The cures exhibited were two cases of acute tuberculosis of the elbow-joint in children: the results were normal contour, good motion, absence of all general symptoms. Also a case of knee-joint tuberculosis, under treatment six weeks, whose gait and symptoms were greatly improved. The fourth case was a man, whose carpal joint had been acutely tuberculous; result normal contour, the joint capsule filled with calcified material; slight movements of the fingers possible.

Albert, Maydl, and others of the surgical staff of the Vienna Krankenhaus, fully endorsed the favorable statements of Kolischer.

While these cases are too few to pass a final judgment upon, they are highly suggestive. The results of this method, so far as contour and mobility are concerned, are greatly superior to anchylosis, or excision. The danger to life is apparently less than even under antiseptic resections; the time consumed by the treatment is no longer than by excision. It remains to be proved, however, whether the nidus of the tubercular infection is as thoroughly destroyed by this method as by excision, and the use of iodoform.—*Med. News.*

PRECOCIOUS CHILDREN.—The precocious child is constantly saying things so epigrammatic and brilliant as to call out the wonder of admiring parents and relations; and oftentimes these strange unnatural utterances are made the subject of remark in the presence of the child, and some newspapers often devote a column to this bright and abnormal child-talk. Nothing could be more harmful than such encouragement of a condition that is out of all harmony with healthful mental and physical growth. As a rule, the precocious child is of a strumous or scrofulous diathesis, with a fair, brilliant complexion, blue eyes, and golden hair, beautiful to look upon according to popular standards. He is delicately sensitive to mental impressions, and alive to the conversation of persons much older than he. He generally goes on his unique career, outstripping his brothers and sisters, as well as his schoolmates, in the committing of tasks at school, as well as in the reading of books far beyond their comprehension.

This generally goes on until the age of puberty, when he begins to falter. The hectic flush is seen upon the fair cheek, the eyes become more brilliant, and the finer and the spiritual elements come out with almost supernatural intensity. By and by a slight cough arrests the attention; and, before the fond parent is aware, phthisis tuberculosis has laid the foundation for premature death. Now, what shall be done to save such children, and make them develop into healthy men and women? First, we would say, *Let them severely alone.* By this we mean, do not encourage the precocious development by pushing the child ahead, and showing the foolish weakness of exhibiting the child to visitors, or displaying him at the performances of Sunday-school concert or public-school exhibitions. We always pity the poor victims of such scenes, who come before audiences, and recite standard poems or sing *cavatinas*, to astonished crowds in heated rooms, amid the glare of gaslights, and dressed in tawdy finery, irrespective of the climate or weather. When we look upon their pale faces and attenuated legs, we wish we had the power to send them home and put them

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to bed. Second, be simple with such children; keep them young, and encourage them to talk child-talk, to read child-books, and to play with other children. Do not let them remain in the house in company with the older folk, when the bright sun is shining, and the other children are romping upon the green with all the glorious freedom of childhood.

Of paramount importance is the physical training of the precocious child. From the very nature of the case, all undue excitement must be avoided. The full quota of sleep must be insisted upon. No late hours should be allowed, full of the amusements that are such a strain upon the nervous system. The diet should be of the simplest character, consisting of food containing all the elements of nutrition, like milk, bread, and soups. Confections, condiments, and fancy dishes should never be set before children. Give fresh air in abundance, and insure the child to go out of doors in all kinds of weather.—*Popular Science News.*

THE LOCAL TREATMENT OE DIPHTHERIA.—Dr. J. Henry Fruitnight, of New York, sends us an interesting communication on this subject, which the crowded condition of our columns compels us to present in abstract. As the disease presents both local and constitutional symptoms, we ought, he argues, to treat it both locally and constitutionally. Many of the remedies employed exert a local effect as they pass over the parts while being swallowed, and, in order to increase this effect, he advised patients, who are able to do so, to retain the dose for a time in the buccal cavity. "In the recent discussion of this subject, no mention was made of one remedy formerly used for its constitutional effect, but which I have employed for its local action. I refer to the hyposulphite of soda, the use of which was suggested to me by Dr. Brickelmaire, of this city, in an informal conversation some time ago. Since then I have treated eight cases of diphtheria with this remedy, giving hourly doses of ʒj. of a solution of the strength of ʒj. to ʒij. of water. In two of these cases the pseudo-membranous deposit was very thick and tenacious. In all there was a gradual lessening and disappearance of the membrane from hour to hour. The patients retained the solution in the mouth several minutes before swallowing it. No other local remedies were employed, though the general condition of the patients received proper attention. In one case, which is now under treatment, the deposit is very great and extends downward to a considerable distance. In this case gentle local applications are made by means of a brush. I have not yet had an opportunity to use the remedy when the disease has invaded the larynx, but intend to employ it in the spray-atomizer in the first case of this kind which presents itself. I shall also use the same method when the patient is too young to hold the solution in the mouth before swallowing it. The hyposulphite of soda has also, very probably, a constitutional action, but it is to its use as a topical agent that I now specially wish to direct attention. I disclaim, however, the notion that it will cure in every case, for we all know that some cases will inevitably succumb to the disease despite any and all forms of treatment. As to the manner of making local the applications, the gentler and more intelligently local applications are made the more favorable are the results likely to be; therefore the spray-atomizer is to be preferred in all cases of the buccal and laryngeal forms of the disease. A suitable syringe, carefully used, is to be recommended for the nares and posterior pharynx. As regards the various remedies recommended for use in the spray-atomizer, I have had a greater percentage of recoveries with trypsin than with anything else.—*Med. Record.*

THE EXAGGERATED DANGERS OF COCAINE.—Dr. J. R. Rankin, of Muncy, Pa., writes that he has never seen any alarming effects follow the use of cocaine in his practice, although he has employed it quite extensively. In every case, however, he first assured himself, by careful examination, that there was no heart-disease present, and if there was, he withheld the drug. He first used the remedy in asthma, in August, 1885, inserting from five to ten drops of a ten-per cent. solution into the nostrils, the dose varying according to the severity of the asthmatic paroxysms. The patient was completely relieved by the daily use of the remedy, and suffered from no unpleasant symptoms of any kind. He has had a like experience with another case of a similar nature. These patients used, on an average, from three to four grains daily. He has also employed cocaine, in the form of spray, in laryngitis and catarrhal fever, with most satisfactory results. In a case of gastritis, occurring repeatedly in the same individual, this remedy has been employed with benefit, in doses ranging from one to six grains. The symptoms following the exhibition of these large doses were, reduction of the pulse from 92 to 68, of the respiration from 22 to 15, slight difficulty in speaking, cooling of the skin, copious perspiration, and mental exhilaration. When a dose of six grains was given, there was slight confusion of ideas for a few minutes. Dr. Rankin adds that he has used cocaine subcutaneously in a few cases, but likewise without the production of any symptoms of an alarming nature. He does not think that we should be deterred from using so valuable a remedy because it is poisonous in large doses, or because some have acquired the cocaine habit. Such arguments would apply with equal force against the use of opium, belladonna, and a number of most valuable remedial agents.—*Med. Record.*

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POISONING BY PENNYROYAL.—Dr. J. Girling writes the *Brit. Med. Jour.:* The rariety of poisoning by pennyroyal or oleum pulegii is emphasized by the fact that standard works on toxicology, like Guy and Taylor, contain no account of the toxic symptoms produced by this drug, nor any indications as to appropriate treatment. Moreover, I find on enquiry that recurrence to pennyroyal is very common when menstruation has ceased suddenly, and that it can be procured with the utmost facility. These considerations have led me to describe the symptoms and the treatment employed in the following case. About an hour after the drug had been taken I found the patient (a woman aged 40) in an extremely collapsed condition. The face was pale, cold and bedewed with beaded sweat, and the hands and feet were cold and clammy. She lay apparently unconscious, but could at first be roused by shaking and shouting to her, rapidly sinking, however, into a state of profound coma. The pupils were normal in size, and responded to light. The action of the heart was exceedingly weak, irregular, and fluttering, the pulse at the wrist being scarcely perceptible. The first cardiac sound was almost inaudible, while there was distinct reduplication of the pulmonary second sound. There was jactitation and feeble retching, with much salivation, but no vomiting and no purging; temperature 97° F. The breath smelt very like peppermint. The treatment adopted was as follows: First, I gave her three-quarters of a tumblerful of water, followed immediately by a hypodermic injection containing one-fifth of a grain of apomorphine. This latter quickly produced the desired effect, the vomited matters having a strong peppermint-like odor. After the vomiting the patient seemed about to die, and having no ether with me I administered brandy hypodermically. The result of this was excellent; the heart-sounds at once began to improve in tone, and the pulse in force, and in twenty-four hours the patient was practically well. Thus the symptoms taken together seem to point to severe cardiac depression approaching to paralysis, and appear to indicate that pennyroyal should be classed among the narcotic heart poisons. It transpired afterwards that the woman had taken ℥j of the essence of pennyroyal (which she had obtained from a chemist), and which is composed of ʒj olei pulegii to ℥vii of spirit.

ANTISEPTIC TAMPONNEMENT OF THE VAGINA IN THE TREATMENT OF PELVIC INFLAMMATIONS.—(Dr. James H. Etheridge, Gynecological Society of Chicago.) What I have to present refers to tamponnement of the vagina and supporting the uterus in cases of pelvic trouble, notably of inflammation and enlargement of the uterus, and as the work has grown upon me, other complications in the way of pelvic trouble have also been treated with a result that has rather surprised me. For it I claim nothing original. The material that I use is a preparation of wool that is called "antiseptic wool." This wool is finely carded, free from all oil and foreign substances. A piece is cut off, of such a length as will fit nicely into the vagina, and then with the patient in the genu-pectoral position, with the perineum retracted, this is stuffed into the vagina and left there. The upper end of this tampon can be soaked in an antiseptic solution, as boroglyceride or listerine, and with a piece of string attached to the lower end of it, the patient can remove it and douche the vagina, in readiness for the next tampon, and in this way tampon after tampon can be introduced and the uterus held up to the highest possible level, and advantage taken of the natural drainage from the uterus of the superabundant amount of blood. The inflammations of the uterus we are usually called upon to treat are not active, but chronic, and if we hold the uterus up so that it can drain itself properly through the veins, the nutritive changes which take place will be facilitated to the greatest extent. A small Sims' speculum can be applied without trouble to the patient, and this wool can be pushed into the vagina, so that when the patient gets up she has a soft elastic cushion for the uterus to rest upon. In this way the greatest comfort is at once experienced. . . These tampons are removed after four or five days without the slighest odor upon them.

When the uterus is enlarged it beomes heavy, sinks, and presses the veins which carry the blood out of the uterus, and we have strangulation. By raising the uterus up, the blood flows freely and the nutritive changes tend always to health. One outgrowth of the use of this tampon may be that many cases of laceration of the cervix now operated upon may escape operation. I have been surprised to see how very nicely patients get along, even though they have extensive lacerations, under this treatment.—*American Journal of Obstetrics.*

THE TREATMENT OF INTERNAL HEMORRHOIDS BY INJECTION.—(Dr. Q. A. Shuford, of Tyler, Tex., in the *Medical Record*): "In the treatment of internal hemorrhoids by submucous injection, it is necessary, in the first place, to have an instrument that can be introduced with the least amount of pain, and so constructed as to expose as much of the mucous membrane as possible. When a tumor is discovered the speculum should be manipulated so as to bring the center of the tumor into plain view, and the needle should puncture the pile at this spot, as it is here less sensitive than elsewhere. This requires a long needle, which should have a guard near the point, so as to prevent it from entering too deeply. For small tumors I inject from three to five drops, and for larger ones from five to eight drops of the following mixture: Rub

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well together one drachm of salicylic acid and one and one-half drachms of glycerine, and add two drachms of carbolic acid; then rub together one drachm of borax and one and one-third drachms of glycerine, and mix the two thoroughly, allowing the mixture to stand until clear. The chemical changes and *modus operandi* of this combination I do not know; but I do know that internal hemorrhoids treated in this way become atrophied, shrink up, and peel off without pain, inflammation, or suppuration. I have never had any trouble nor heard any complaints from patients so treated. The two essential points in the treatment of internal hemorrhoids are: First, an instrument that will bring the parts to be treated into view, and that without pain; and, second, a remedy that will completely destroy the pile, while leaving the mucous membrane in a healthy condition. An interval of from eight to ten days should be allowed to elapse between the injections, so as to give the mucous membrane time to become toughened. The injections cause almost no pain, and do not prevent the patient from pursuing his ordinary avocations." Dr. Shuford reports several cases treated after this method, and adds that he has treated nearly one hundred, of varying degress of severity, and in none has he seen any inflammation or suppuration following the injections.

BORACIC ACID IN THE TREATMENT OF LEUCORRHEA. — From the excellent results which are yielded by boracic acid packing in chronic suppurating otitis, Dr. N. F. Schwartz (*St. Louis Courier of Medicine*, June, 1887) was led to employ it in a case of leucorrhea, which had resisted the most persevering use of the ordinary remedies. The experiment was successful within a fortnight, and the patient has remained well for several months since. Dr. Schwartz states that he has been equally successful in a number of other cases. His manner of using it is as follows: Having first irrigated the vagina with water at as high a temperature as can well be borne by patient, a cylindrical speculum is introduced, and the vaginal walls very carefully dried, first with a soft sponge and then with absorbent cotton. This done, boracic acid in crystals is poured into the mouth of the speculum, and pushed up against the uterus and vault of the vagina, with a clean cork caught in a uterine sponge-carrier, sufficient acid being used to surround and bury the intravaginal portion of cervix, filling the upper part of vagina. A tampon of absorbent cotton is then firmly pressed against the packing, and held *in situ* until the folds of the vaginal walls close over it as the speculum is withdrawn.

This should be allowed to remain three or four days, or even longer, as after this time there still remain some undissolved particles of the acid, nor will the tampon seem at all offensive. The ostium vaginæ, if examined in twenty-four hours, instead of being besmeared with the leucorrheal secretion or discharge, presents a clean appearance, and bathed in a watery fluid, which begins to appear several hours after the packing has been placed, and in his cases this was the only discharge noticed afterwards.

However, a second or even a third repetition may be necessary, but in none of his cases, numbering nearly a score, has he found more than a second packing called for, and in many one sufficed; and in no instance has its use occasioned pain, nor even inconvenience.—*Ther. Gaz.*

HOW TO PRESCRIBE SANTONIN.—Dr. Norderling, of Rockford, Ill., gives a very clear account of how santonin should be prescribed to obtain its full physiological effect. In order to accomplish its therapeutic object, it is necessary, first, that santonin be in a form in which its vermicidal action can be exerted; and secondly, that it reach the habitat of the parasite. Santonin is insoluble in water and dilute acids, but dissolves in the saliva, and the gastric, intestinal and pancreatic juices. Solution in the gastric juice takes place so rapidly that the maximum dose is completely absorbed in the stomach, and taken into the circulation before reaching the intestine. Consequently, in order to obtain its vermicidal effect, it must be administered in such a form that it will not be acted upon by the gastric juice. It has been proved by experiment that santonin, when given in an oily solution, is not at all absorbed in the stomach, the entire quantity passing into the intestine; and Küchenmeister has shown that whilst ascarides are not affected by santonin crystals floating in water, they are killed when brought in contact with an oily solution of the drug. In such a solution, any form of oil may be used, and the best effect is obtained by three grains of santonin dissolved in two ounces of oil, to be taken in four doses. It is good practice to add one drop of wormseed oil to each dose, all volatile oils being poisonous to the lower organisms. If movement of the bowels is desired, castor-oil will be suitable, although not in too large a dose, because with strong peristalsis the santonin does not remain long enough in the intestine to produce the desired effect. About two drachms of the oil to each dose will be sufficient.—*N. Y. Med. Rec.*

GASTRIC ULCER.—Ulcer of the stomach is probably a much more frequent disorder than is generally recognized. On the other hand it probably is often believed to exist when not present. Our own experience has led us to think that the positive diagnosis as to its existence or non-existence is in some cases impossible. It may be simulated by chronic gastric catarrh or by neurosis of the stomach. Pain after eating, with vomiting, and

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epigastric tenderness are very common in hysterical women, especially in girls shortly after puberty. The absence of blood from the vomit is not of as much importance from a diagnostic point of view as appears at first sight. Hysterical vomiting is not rarely accompanied by slight or even pronounced hæmatemesis, and we have seen fatal ulcer of the stomach without hemorrhage, and, indeed, without a history of vomiting. Gastric ulcer is of course not infrequent in young hysterical girls, but that the gastric symptoms are often not due to any stomachic ulceration is proven by their occasional sudden disappearance.

Our own experience is, that in many of these neurotic cases a quarter of a grain of nitrate of silver with a grain of hyoscyamus, accompanied by soft diet, is efficacious. If however, it fails to do good in the course of a very few weeks, its use should be abandoned, and the treatment be that of hysteria, with a use of diluted nitro-muriatic acid at meals.

In a recent article in the *Medical Press*, Dr. W. H. Pearse calls attention to the fact that many of these cases do best when the eccentricities of diet are given full swing. If the patient prefers smoked and salt fish, salt meats, pickles, onions, or even Dutch cheese, he allows the article to be taken with asserted good results. A favorite article with him seems to be one which is not much used by the Anglo-Saxon race in America, namely, "potatoes with vinegar." Whether by this is meant the potato salad beloved by our German brethren or not, we do not know.—*Ther. Gaz.*

Corrosive Sublimate in Intra-Uterine Irrigation.—Dr. Braun, from recent observations, has arrived at the following conclusions concerning the use of corrosive sublimate in irrigation of the uterus and vagina: (1) Vaginal or intra-uterine irrigation is frequently followed by absorption of the injected liquid; (2) When this occurs, mercury is quickly detected in the feces; (3) If the return of the injected liquid be in any way prevented, absorption occurs rapidly; (4) The 1 in 1000 solution of sublimate should be used only in serious cases, such as tympanites of the uterus, putrefaction of the fetus in the uterine cavity, or septic puerperal fever. The injection should not occupy more than a minute in the performance, and should be followed by a copious injection of distilled water. (5) The 1 in 4000 solution should be injected only in cases of expulsion of a macerated fetus or in endometritis consecutive to the expulsion of the fetus in premature delivery; (6) This solution may be of service in puerperal endometritis, accompanied by a fetid vaginal discharge; in these cases irrigation should be followed by an injection of pure water; (7) Irrigation should be performed only by a medical man; (8) Irrigation with corrosive sublimate should seldom be employed in women suffering from extensive wounds of the vulva, in those who have been taking mercurial preparations, in cases of atony of the uterus, in anæmic women, or in patients suffering from disease of the kidneys. —*Brit. Med. Jour.*

Tracking Scarlet Fever.—A very close piece of inductive reasoning was presented lately to the Royal Society by Professor Klein. In his endeavors to ascertain the cause of an outbreak of scarlet fever, he showed, first, that certain minute plants —micrococci—were always associated with the disease, then he isolated these germs, cultivated them in the way familiar to those who study these organisms, and then inoculated previously healthy animals with the germs, with the result that the disease was induced. Following up other clues, the cause of the outbreak in question—that at Hendon—was traced to a particular dairy farm, then to a particular cow, and, still further, to one particular teat. It was shown that milk from the other teats was free from germs, while that derived from the teat in question contained germs capable of producing the disease in other animals. The infecting germs came from the ulcerated teat, so that the milk itself, even from this teat, would be free from germs if means could be taken to avoid contact with the sore spot. Hence we have here the cause of scarlet fever tracked home, and the means of prevention are clearly indicated. The anti-vivisectionists may disapprove of these experiments, but no one who has had experience of the horrors of malignant scarlet fever, or who has any sympathy with suffering animals, will doubt that the permanent benefits conferred on man and on animals enormously outweigh the relatively slight amount of harm done to the few animals experimented on.—*Col. & Clin. Record.*

Sweet Milk Diet Entirely Prohibited in Cholera Infantum.—Milk, in any form, in acute diseases, when the temperature is 102° or more, is more or less injurious. But I wish, in this communication, to direct the attention of the profession to prohibiting sweet milk or breast milk in cholera infantum and diarrheas of children, and dysentery in adults. I am aware that this assertion is contrary to the common custom and usage of the profession, but I have observed, for several years past, that in high temperature sweet milk invariably increases the intensity of the disease. In cholera infantum, in a large majority of cases, the temperature is always high; the child of, say six or nine months old, is constantly nursing the breast, the milk curdling and disorganizing in the stomach, vomiting up large chunks of curdled milk, and, if not thrown up, it forms a foreign body in the stomach and bowels, keeping up irritation and inflammation, and making it detrimental to all medication. It is true, that in cases of chol-

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era infantum breast or sweet milk may be used and the patient get well, but we have observed that those cases will improve faster without it.

The general cause of cholera infantum is solar heat, while the local cause varies, which, in all cases, produces congestion and inflammation of mucous surfaces, and the secretions have an acid reaction, sweet milk being alkaline, hence an incompatibility. Since I have discarded milk in cholera infantum, I cure a larger per cent. Use oatmeal, rice and gruel; cold water in limited quantities. Warm drinks quench thrist better than cold drinks.

By withholding milk from the child in this terrible disease, remedies have a better influence, and save a larger per cent. in curing cases.—*Med. Brief.*

THE TREATMENT OF CATARRHAL JAUNDICE.—Dr. Gluzinski, writing in a Polish journal, states that in cases of catarrhal jaundice he has found excellent results follow the treatment recommended by Krull, viz., the repeated injection into the bowel of large quantities of cold water. This increases the peristaltic action of the intestines, and removes any mechanical obstacle to the flow of bile. Again, as has been shown by Röhrig and Mosler, who injected large quantities of cold water into dogs, the bile is thus rendered both more liquid and more abundant, so that it more easily overcomes any obstruction. At first, water at 59° F. is injected into the bowel until the patient complains of a feeling of distention in the abdomen. He is then made to retain it as long as possible. Most patients manage to retain two litres for from a quarter to half an hour. The next day the enema is repeated, but with water about 4° higher. The temperature is again raised on each succeeding day, but when 72° has been reached no further increase is made. The reason of the increase is that the repeated introduction of cold water is apt to irritate the mucous membrane of the bowel. Altogether four or five enemata are sufficient to produce the desired effect. The increase of the biliary secretion may be judged of by the color of the feces. Of course, the diet is attended to in order to prevent a recurrence of the affection.—*Lancet.*

A DAKOTA DOCTOR.—The board of health of Dakota publishes the results of an examination of an applicant for a licence to practise medicine. He had been practising medicine for years in a populous district of South Dakota. Here are some questions and answers:

Question. What medical journal do you take, doctor? Answer. Well, they have all run out.

Q. Don't you intend to take any of them again? A. Well, I can get along without them.

Q. What books have you in your library? A. "Gunn's Family Physician and Common Sense Home Doctor."

Q. What is an element? A. Oh! anything.

Q. Is that bed an element? A. Yes.

Q. Name the three great cavities of the body. A. The head, the belly, and the diaphragm.

Q. Mention the contents of the cranium. A. The brain and three skins.

Q. Name contents of abdominal cavity. A. Kidneys and the prostate gland.

Q. Does the prostate gland ever become enlarged? A. Yes.

Q. Have you treated any cases of enlarged prostate? A. Lots of them.

Q. With what success? A Tip-top! Never lost a case.

Q. Do you ever treat any female for enlarged prostate? A. Oh, yes; numbers of them.—*N. Y. Med. Record.*

IS THE DANGER OF POST-PARTUM HEMORRHAGE INCREASED BY THE USE OF ANÆSTHETICS DURING PARTURITION?—Dr. Fordyce Barker says that his experience with anæsthetics in labor had been limited, since 1850, almost exclusively to chloroform, which he regards as preferable to ether—because the odor is less disagreeable; because it is less irritating to the respiratory tract; because it is more quickly effective, and in less quantity. It should be used intermittently, only at the time indicated. Dr. Barker employs chloroform to relieve pain in most cases of normal labor, and says that heart disease in not a contra-indication to its use when any anæsthetic is called for. He believes that with proper care no woman should die of post-partum hemorrhage due solely to uterine inertia. Chloroform hastens much oftener than it retards labor. It could not be shown to exert any injurious influence on mother or child. The only case on record of death after chloroform in labor, in care of a competent practitioner, was one in which the anæsthetic had been preceded by convulsions, and it was not proven that chloroform was the cause of death. Dr. Barker says he has never had post-partum hemorrhage occur in any of his cases except one, and in that chloroform had not been used.—*Boston Med. and Surg. Jour.*

Dr. Samuel E. Woody, Prof. of Chemistry and Public Hygiene, and Lecturer on Diseases of Children, Kentucky School of Medicine, at Louisville, on April 8th, said:—Papine was used in a case of acute dysentery of unusual severity, requiring unusually large doses of opium. The effects of Papine were so purely hypnotic and anodyne that a pound was ordered, and no other form of opium was used during the entire illness. Papine is a Pharmaceutical Triumph.

CHILD-BIRTH AFTER OVARIOTOMY.—Dr. Macaulay writes to the *Lancet*, that he has attended a woman in her seventh confinement, since the removal of an ovarian tumor by Sir Spencer Wells, in 1875.

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THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

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EXERCISE.

We apprehend that insufficient attention is generally paid to the great value of judicious exercise as a remedy, by the large majority of physicians. Many individuals whose occupations do not involve manual labor, exist in a semi-pathological state, as their permanent natural condition. Their health standard is low, bordering on the confines of disease, with poor physical development; proper harmony between the functions of the various organs does not obtain, all because of the continued violation of natural laws, especially that of necessary physical exertion. These unfortunate people are continually breaking down. Existing on the verge of disease, they are subject to the least deleterious influence at all times, and less amenable to remedies when attacked by disease. Their systems are ever in a condition to receive any passing contagious germ, and to propagate and indefinitely multiply these germs, to the great injury of the community.

To this numerous class, out-door exercise and the gymnasium are invaluable. Want of healthy exertion, pure air, and wholesome surroundings are the chief causes of their abnormal condition, and only these can restore, or cause approximation to the normal health standard. Pure air and wholesome surroundings cannot always be obtained, but requisite exercise is at the command of all. For those who are unable to exert themselves, massage supplies the want; for all others, walking, riding, out-door games, the gymnasium, and if necessary, manual labor, will prove more effectual in restoring the proper development and balance, than anything at our command.

We have only to compare the standard of health enjoyed by our laboring classes under favorable conditions, with that experienced by those whose occupations do not involve physical exertion, to recognize the value of properly directed and judicious exercise, in maintaining not only a high standard of health, but in restoring the invalid and convalescent to that standard. How important then, that all should be advised by their physicians to keep up a properly directed system of physical exertion, that they should be instructed to rely more confidently on this as a remedy than on stimulants, tonics, or any so-called reconstructive pharmaceutical preparations. We do not wish to imply that the latter are not useful, or that exercise is the sole remedy, but we do claim that it is of great value and importance in suitable cases, and that it does not usually obtain that recognition and appreciation which its merit demands. We fear we are all too much inclined to prescribe artificial remedies, and neglect the natural.

In considering the effects of physical exertion, let us not forget that, not only the muscles are acted upon, but every organ and function of the body is affected, and in a manner conducive to their natural growth and health. It is unnecessary to enumerate the well-known and thoroughly established results on the circulatory system, the lungs, nerves, skin, brain, viscera, etc., of exercise both in health and disease, as we are not aware of any question or doubts on these points. Exercise, then, adapted to the condition of the patient, intelgently directed, must exert a potent influence in restoring to their natural physiological conditions the depressed organs, and bringing each and all nearer to the normal health standard.

That so many poorly developed and unhealthy people exist among us, is an evidence that too little attention has been devoted to this means of improving the development and health of the community. We should seek to overcome the evil results of our artificial life, which obtains chiefly in cities and towns, by enforcing all possible natural conditions. We are, to some extent at least, the guardians of the health of the community, and should more effectually direct the attention of the

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public to this very important means, not only of restoring health, and happiness, but of retaining health and vigor, by acting as a powerful prophylactic against the encroaches of the universal pathological germ, by placing the system in the best possible condition to resist the access of disease, of lessening its virulence, and promoting rapid recovery when under its influence.

CHOLAGOGUES.

One of the most frequent complaints the physician hears in ordinary routine practice, if we leave out the ubiquitous pain in the back, is that the patient is or thinks he is, bilious. The old fashioned blue pill and black draught are perhaps quite as much in favor to-day as they were a hundred years ago. Calomel also is a sheet anchor among cholagogues, and a very reliable one it is. But, while calomel is useful and reliable, Rutherford's experiments with that drug, go to show that it has no stimulant action on the liver whatever. He found that it stimulates the intestinal glands and so perhaps it acts by sweeping or flooding the bile out of the intestines. It is well known that bile which is poured into the intestines is carried back again to the liver, and excreted over and over again, and thus a cycle is established between the intestine and the liver, which Lussana named the "entero-hepatic circulation." Now, stimulation of the liver, need not, as will be readily understood from a consideration of the above named entero-hepatic circulation, relieve the system of its excess of bile, for while some of it is always lost in the fæces, the major portion will be carried back to the liver and simply excreted over again. But, by combining hepatic with intestinal stimulants, we really accomplish this end. Calomel does not stimulate the liver, but corrosive sublimate does. Now, it is clinically certain, that calomel is a very effective cholagogue. How then does it act? The answer is not easy, but the suggestion made by Lauder Brunton is a good one, viz., that a portion of the subchloride may be chemically acted upon in the intestine, so as to form the bichloride, and this exerts its specific action upon the liver. Thus, while administering calomel, we get practically the cholagogue effect of both hepatic and intestinal stimulants. Rutherford showed that a purgative which does not stimulate the liver, actually diminishes the flow of bile. This may be accounted for by the sweeping away in the evacuation of all the bile in the intestine at the time when it began to act energetically, and a consequent diminution of the bile poured into the intestine by the amount which would otherwise have been absorbed and re-excreted. Taking that view, all hydragogue cathartics possess a certain cholagogue action, whether they stimulate the liver or not, relieving the system of just as much bile as, by their mechanical action, they sweep out of the intestine. But again, these hydragogues may lessen the secretion of bile by lessening blood, pressure in the liver.

As an adjunct to cholagogues, ipecac is excellent; especially is this the case when from a catarrhal condition of the gall duct, much tenacious mucus tends to obstruct the free flow of the bile. At the same time it is believed to increase the flow by a positive stimulation of the secretary function of the liver. Among other adjuncts may be mentioned brisk exercise for even a few moments, such as climbing, exercise on the bar, etc., emetics, which by producing vomiting, cause pressure on the liver which does good, as also forced inspiration by causing the diaphragm to compress the liver.

Ringer recommends very highly as a cholagogne, small doses of grey powder, say, one-third or one-sixth of a grain repeated every six hours. He has found excellent results from such treatment.

UNPROFESSIONAL ADVERTISING.

We are thankful to say that we have not had occasion to refer to the above topic for some months, but such a number of instances have been brought under our notice lately, that, wearisome as it may be to our readers, we must make some reference to it. We have this month received communications from different parts of the Province, backed up by articles in local papers, asking that the matter be referred to. Fortunately, at the last meeting of the Ontario Medical Council, a Committee of Discipline was appointed, to take cognizance of such practices on the part of regularly qualified men. This committee consists of the following gentlemen: Drs. Logan, Bray, Day, Russell and Wright, and to them all complaints regarding unprofessional conduct may now, as we understand the matter, be referred. It is a pity

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that men, belonging to one of the noblest of professions, will prostitute it, by even *permitting* such notices to appear in local papers. It may occur *once*, through the energy of the ubiquitous reporter but *once* should end it. So when we find notices running through different numbers of the same paper, the most charitable of us can only conclude that the underhand advertising is done with the full sanction, if not connivance, of the surgeon whose skill in the use of the knife is held up before an admiring and awe-stricken public. We say surgeon, for it is almost entirely in the domain of surgery that these men make their mark. There is not enough of the "penny dreadful" in medicine to hold the attention of the readers of these notices. Ovariotomy seems to be having a run just now, perhaps because it is so fashionable.

No one can contemplate such advertising without condemning it. Let us hope that our Committee of Discipline may, in their wisdom, find some effectual means of combating this evil, and that a healthier professional spirit may soon be found in the land.

TIGHT LACING.

Did any one ever hear a lady admit that she ordinarily wears her corsets very tight? or that her boots are constantly worn a size or more too small? We think not, and this in the face of the fact that her face is—while she is speaking to you—blue, from want of sufficient air, or she is obliged to hobble when attempting locomotion. It has been so from the beginning, and we fear will continue to the end. Medical men and others who are given to "preaching" on this subject, will now have a good text for their discourses. A maiden of fifty-two summers is reported, in the *British Medical Journal*, as having lately died suddenly from the effects of tight lacing. This opinion as to the cause of death was freely expressed by the surgeon in attendance, Mr. Varne, of the North-West London Hospital. If those women who go about with waists like wasps, irrespective of the size of the hips, shoulders or bust, could but see themselves as we of the male sex see them, there would be, we believe, a sudden cutting of countless corset strings, and the free introduction of air into the lower lobes of hundreds of thousands of lungs, which now do not perform their function, or at best perform it very imperfectly during sixteen or eighteen hours of the twenty-four.

The victim referred to above was old enough to have known better, but there is no limit to the foolishness which women of all ages, who are devotees of fashion, will practise. We have given all the particulars we can in this case, and hope they may be useful in pointing advice to the fair sex, from those who would see them enjoy the most robust health possible to beings with a uterus and two ovaries arranged on the plan they are in the human female, which as we heard pertinently remarked the other day by a medical man, seems a rather poor plan. The great difficulty will be to get the sufferers to admit that they do "lace tight."

THE INTERNATIONAL MEDICAL CONGRESS.

In hope that this number of the LANCET may reach our readers in time, we wish to draw attention to railway fares to Washington, for the Medical Congress. Dr. J. E. White, of this city, has completed arrangements with Van Every, whereby intending visitors may leave Toronto, by steamer *Empress of India*, at 2 p.m., Saturday, September 3rd. The ticket carries holder to Washington, *via* New York and Philadelphia, good for fifteen days, for $14, inclusive of Pullmans both ways. This arrangement will give intending visitors a week in Washington for the Congress, and another week wherever they choose, leaving New York, say, for home on Saturday the 17th. The party of medical men who will leave Toronto, will number between forty and fifty. Hotel arrangements have been made with the Riggs' House, where the local committees have their offices. Members of the Canada Medical Association may connect with the excursion at the Bridge, on Saturday (3rd) afternoon, and receive the benefit of the reduced rate. Parties coming to Toronto will pay full fare to this point, and will receive a certificate from their local ticket agent, upon the presentation of which, tickets will be issued for the return at one-third fare.

IVY POISONING.—This troublesome affection has so many vaunted remedies, and yet is so often intractable to treatment, that the following (*Popular Science News*) may be of interest, showing as it

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does a practical mode of obtaining the most satisfactory results from a remedy which is often very beneficial.

"I have always been so extremely susceptible to the poison of poison ivy and oak as to give me great annoyance, unless it is immediately checked on its first appearance. This, common washing-soda accomplishes for me, if properly applied. I make the application by saturating a slice of loaf-bread with water, then cover one surface with soda, and apply to the eruption, the soda next the flesh. When the bread is dried by the animal heat, I drop water on the outer side, so as to keep it thoroughly moistened, and dissolve the soda crystals in contact with the skin. This, you will perceive, is merely a bread poultice; the bread being a vehicle through whose moisture the soda reaches the humor. I find that the washing or bathing with soda water, even continuously, will not suffice with me. My skin requires the heat and moisture of the bread in order for the soda to act on and neutralize the poison. I rarely have need to retain this soda poultice for more than thirty minutes on any affected part. No pain ensues. Formerly I suffered often for weeks, as the poison would spread all over my body. Now, thirty minutes measure the duration of its exhibition."

When cases go on to suppuration, calcium sulphide in quarter grain pills every 6 hours is indicated, and will, we believe, be found extremely useful.

ANTIPYRIN AND THALLIN IN THE TREATMENT OF TYPHOID.—Dr. Francis Minot, of Boston, has formulated the following (*Jour. Am. Med. Assoc.*) as the result of the study of twenty-four cases of enteric fever, treated by antipyrin and thallin, at the Massachusetts General Hospital:

1. Both antipyrin and thallin have a remarkable power of reducing the temperature in typhoid fever. 2. In no case was the use of these refrigerants apparently followed by any unfavorable effect upon the course of the disease. 3. The general condition of the patient was more comfortable after taking antipyrin and thallin, which were often followed by sleep. 4. The refrigerant medication by antipyrin and thallin appears to have no specific or decided effect upon the course or issue of typhoid fever. It often contributes much to the patient's comfort, and perhaps indirectly promotes his safety. 5. The effect of antipyrin and thallin in promptly lowering the temperature, shows that the danger in typhoid fever does not consist in high temperature alone, and that the latter is rather an index of the violence of the abnormal condition which we call fever, though, perhaps, adding somewhat to the danger. 6. By the internal use of antipyrin and thallin, all the effects which are claimed for the treatment of typhoid fever by the cold bath, are readily obtained without the trouble and inconvenience of the latter method, and without exposing the patient to the dangers of exhaustion and shock, consequent on the fatigue of removal from bed. 7. These remedies may be given without danger to the youngest patients in suitable doses, and indeed, their beneficial effects are more decided, and the unfavorable consequences less observable than with adults.

MALARIAL FEVER.—Dr Jones, of New Orleans, in *Gaillard's Medical Journal*, gives abundant theory regarding the phenomena of malarial fever, in part as follows:

The phenomena of malarial fever are due in part to the destruction of the colored blood-corpuscles, in part to the derangement of the normal chemical changes of the blood and organs, and in part to the toxic action of the chemical compound developed by and resulting from the action of the micro-organisms. The active febrile phenomena of malarial fever are, in their ultimate results and products, *antiseptic*; they tend to inhibit the development of, and even do destroy the morbific ferment of malarial fever.

Many of the most destructive and fatal effects of malarial ferment occur in cases in which the paroxysms succeed each other in an almost imperceptible manner. The recurrence of paroxysm in malarial fever is due to the partial destruction of the micro-organisms during the active and pronounced chemical changes of the fever. When not wholly destroyed during the febrile stage, the micro-organisms are produced, again and again, at definite intervals, induce disturbances of the system, alterations of the blood and oscillations in the temperature.

Such agents as quinine, arsenic, and the preparations of mercury act as poisons to the micro-organisms of malarial fever, excite an antiseptic

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effect upon the blood, bind the oxygen more closely to the hemoglobin and proteids, and directly promote elimination, through the alimentary canal, the skin, and the kidneys, of the noxious products of the morbific ferment, and of the increased and altered chemical actions.

To avoid Rupture of the Perineum during Labor.—In regard to this important and much vexed question, Dr. Berry Hart (*Ed. Med. Jour.*), says:—"All the attendant can do, apart from the familiar means of relaxing perineal spasm by choloroform and hot applications, is to prevent the sinciput being forced down in advance of or faster than the occiput. He restrains the fœtal head from passing too rapidly. He thus has always to get the occiput to lead, and to get it fully born first if possible. So far as I can judge, the best way of doing this is as follows: With the patient lying, of course, on her left side, the attendant places the the thumb of his right hand, guarded by a napkin soaked in hot sublimate, in front of the anus and presses it gently there. The pressure is not in the direction of a line joining his thumb and the pubic arch, but nearly in that of the axis of the pelvic outlet. By this, descent of the sinciput is hindered, and that of the occiput favored. When the latter is beginning to pass under the pubic arch, the fingers of the same hand are placed between it and the apex of the arch, so that when the occiput has cleared the arch, the fingers are passed towards the nape of the neck, and the head thus grasped in the hand, the thumb lying over the sagittal suture. This gives one complete command over the head, which is now engaging in the diameters between the nape of the neck and forehead and face, and allow the whole passage with as little tear as possible."

Treatment of Heat Stroke in the British Army.—The following is the treatment (*Br. Med. Jour.*), described by Surgeon C. Douglass Hunter, as that which he has successfully practised among the English troops in the tropics:—"Treatment must be immediate and thorough. The patient should be stripped and laid in the coolest place possible—in the shade outside is best—and cold water dashed on the head and spine; this should be maintained; a large enema administered, and the lower bowel well emptied. If the patient regains consciousness, he may then be placed on his bed (if the temperature remains high) in a wet pack, and ice kept to his head. Five grains of calomel may then be administered, and diaphoretics given frequently. To promote free action of the skin and maintain the action of the bowels, is very needful. If a relapse threatens, douching should be at once resorted to. If there are no signs of rallying, use sinapisms to the heart, frequent douching, ice to head and spine, friction of the limbs; if the pulse is failing, brandy at frequent intervals in small doses and brandy enemata. If respiration is failing, artificial respiration should be employed and well kept up. On no account give up every attempt until life is quite extinct. On no account bleed the patient. The after-treatment is to maintain free action of the skin and bowels—tonic and change of air to a temperate climate.

"The essence of treatment is to reduce the bodily temperature as speedily as possible, and the surest way to do this is by the application of cold water and ice; this should be maintained, and the least relapse dealt vigorously with in the same way. Immediate action of the bowels by enemata is very necessary, and an emetic is beneficial in suitable cases."

A Movable Sheet for the Sick.—The following, by Dr. Roche (*Pop. Scienc. News*), is of practical value:—I have found the following a valuable arrangement for the sick needing change of position, or, as is often the case, a weak nurse to perform the labor, or in cases of surgery, where the safe and easy movement of the patient is necessary:

Fasten smoothly to the mattress, with strong safety-pins, a rubber blanket or piece of enamelled cloth, rubber or enamel side up. Upon this, place a similar rubber or enamelled cloth, if possible somewhat wider, so as *always* to keep the under one covered. Cover with a sheet, and make up the bed as usual. Between the rubber or enamelled surfaces sprinkle soapstone powder, kept by all shoe-dealers, or glove-powder; or, if nothing better can be had, the common graphite, known as stove-polish, will do. Now, by grasping the edge of the under sheet and upper enamelled cloth at the same time, it will be found easy to *roll over* or move the heaviest person with slight effort, and

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little pain or straining, either to nurse or patient. If the device prove too slippery when not wanted, a few strong pins fastening it to the bedding beneath, will prove sufficient to prevent it.

TOILET PREPARATIONS.—The following, taken from a report submitted to the Hygienic Council of Paris, by Drs. Dubrisay and Chatin, may be interesting as showing the deleterious influence of various articles of the toilet, such as hair dyes, cosmetiques, etc. Though they are usually advertized as "vegetable, and perfectly harmless," an analysis shows they are all more or less noxious. We copy a part of the report from the *Med. and Surg. Reporter:*

"Progressive dyes" are ammoniacal solutions of nitrate of silver. The "instantaneous dyes" are a solution of litharge in lime water. "Eau des Fées" is a solution of sulphate of lead in hyposulphite of soda. "Eau Figaro" consists of three solutions: (1) of nitrate of silver and sulphate of copper; (2) sulphide of sodium; (3) cyanide of potassium (to remove the silver stains). "Eau des Fleurs" is composed of rose-water, 95·5; flowers of sulphur, 2.7; acetate of lead, 2·8. Passing to cosmetiques, they say "Lait antiplelique" is composed of corrosive sublimate, 1·7; oxide of lead, 4·22; sulphuric acid and camphor. "Lait de Manille" is a mixture of borax, copper, tincture of benzoin, and essence of bitter almonds; "Lait de Ninon," of bismuth and zinc; "Eau Magique," oxide of lead and hyposulphate of zinc; "Eau de Fleur-de-lys," protochloride of mercury; "Eau royal de Windsor," glycerine and oxide of lead; Eau de Castille," hyposulphite of soda and acetate of lead. The "Poudre Pilivore de Laforet" contains mercury (?) 60 grs.; sulphide of arsenic, 30 grs.; litharge, 30 grs., and starch, 30 grs. "Epiteine" is simply sulphite of calcium, and "Antibolbos" hypophosphite of soda. Pomades against baldness all contain cantharides and croton oil.

NO SUCH DISEASE AS PRURIGO.—Dr. Tom Robinson gives *(Jour. Cutaneous and Venereal Diseases)* his ideas on this so-called disease, as follows:

1. There is not such a disease as *prurigo*. 2. That all cases of itching skins have a recognized and discoverable cause. 3. That all the group of symptoms, which are known as prurigo, are the result of scratching, and are simply symptoms. 4. All scratched skins which have advanced to an elephantoid state, and which have set up enlargement of lymphatic glands, are beyond the reach of remedies or hope. 5. That the pruriginous skin of children has its origin in developing hair follicles, which progresses from birth to puberty, when it stops. 6. That excessive itching does not occur in those situations where the hair grows luxuriantly. 7. That what is known as winter prurigo is due to imprisoned hairs. 8. That an irritable state of the chin is always associated with an irritable state of the mucous and synovial membranes.

USE OF CASCARA SAGRADA.—Dr. Russell, writing to the *Coll. & Clin. Record*, gives the result of the action of the above drug in fifty cases, which were under his observation for a considerable time. The fluid extract was always used, with an initial dose of ℥ xx, t. d. He found it useful in forty-three cases out of the fifty, in all of which favorable cases the dose was gradually diminished, while in no case was it found necessary to increase the effective dose to produce an evacuation of the bowels. The writer notices that it is much more useful in chronic than in acute cases, and especially in older patients.

NEW TEST FOR MORPHINE.—We take the following from the *Med. Press and Circular*:—Add a few drops of concentrated sulphuric acid to a solution containing as little as 1-200th grain of morphine, together with a few drops of a solution of sulphate of sodium, heat in a porcelain capsule, and as soon as a white vapour of sulphuric acid forms, cool rapidly, when the mixture will become of a blue color, resembling syrup of violets. If the heating process be continued the liquid turns brown, and when allowed to cool, it turns of a bright red color on the addition of a few drops of water. A little more water turns the color to a pale green. If now an equal volume of chloroform be added and shaken, the chloroform becomes of a fine blue color.

OSMIC ACID IN SCIATICA.—Considerable success (*London Med. Rec.*) has followed the injection of osmic acid in the course of the affected nerve, not a few absolute cures having been reported as well

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as many ameliorations. A one per cent. aqueous solution is used, of which about sixteen minims are injected, at first daily and then less frequently.

THE INTERNATIONAL MEDICAL CONGRESS will convene in Washington, on Monday, September 5th. Members intending to attend the Congress are requested to send their names in advance to the Hoffman House, New York, so that the committee can secure for them reduced hotel and railroad rates.

AMERICAN PUBLIC HEALTH ASSOCIATION.—The fifteenth annual meeting of this scientific body of men will be held in Memphis, November 8, 9, 10 and 11, 1887. The Executive Committee have selected the following topics for consideration: "The Pollution of Water Supplies," "The Disposal of Refuse Matter of Cities," "The Disposal of Refuse Matter of Villages, Summer Resorts, and Tenements," and "Animal Diseases Dangerous to Man."

TO STOP THE PAIN IN BURNS.—A writer to the *Rep. de Pharm.*, says he has succeeded in almost instantly arresting the pain in burns, by allowing seltzer water to flow slowly over the affected parts. He thinks the carbonic acid, and the cooling, combine to arrest the pain.

URTICARIA.—De Mussy gives *(L'Union Méd.)* the following formula for the above:

℞—Pulv. jaborandi,
Ext. guaiacæ, ... gr. jss.
Lithiæ benzoat, ... gr. iij.
M. ft. pil.

BRITISH DIPLOMAS.—Dr. William Brown Thistle, of Stratford, Ont., has lately taken the L.R.C.P. London. Drs. R. C. Kirkpatrick, of Montreal, S. G. Parker, Toronto, J. D. Flagg, J. D. Balfour, D. G. Russell, H. C. Cunningham, T. A. Amos, have taken the triple qualification of L.R.C.P. and S. Ed. and L.F.P. & S., of Glasgow.

INFANTILE DIARRHEA.—It is said (*La France Médicale*) that Huyem has found that the green colored stools of infants with entero-colitis, is due to the presence of a microbe which secretes the green coloring material. The treatment recommended is, a dessertspoonful of a 2% solution of lactic acid after each nursing.

FOR SUMMER DIARRHEA:—

℞ Tinct. opii deodorat. . . . gtt. vj.
Tinct. catechu . . . . . f ʒ jss.
Syr. rubi villosi
Syr. rhei aromat. . . āā f ʒ ii ss.
Aq. camphoræ . . . . . f ʒ j.

M. S.—A teaspoonful every hour or two, for a child under one year.—*A. S. Gerhard.*

FOR SCIATICA, Dr. Metcalf (*Jour. Am. Med. Assoc.*) says the following is very useful:

℞ Tinct. aconit. rad.
Tinct. colch. sem.
Tinct. belladon. . . . . āā ʒ j. M.

S.—Gtt. vi every 6 hours.

CHRONIC RHEUMATISM.—The following is a useful formula:—

℞ Liq. pot. arsenit. . . . . ʒ ss.
Potas. acetat. . . . . ʒ ij.
Vin. colchici rad. . . . . ʒ ij.
Ext. cimicifugæ fl. . . . . ʒ iij.
Ext. phytolacca fl. . . . . ʒ iss.
Aq. menth. pip. . . . . ʒ iij. M.

S.—ʒ j every 4 hours.

HEBRA'S OINTMENT FOR FRECKLES:—

℞ Hydrarg. precipitat. albi . . gr. 75.
Bismuthi subnit. . . . . gr. 75.
Ung. glycerin. . . . . ʒ 5.
M. ft. ung.

S.—Apply every two or three days.—*Les Nouveaux Remèdes.*

AGARICIN IN NIGHT SWEATS OF PHTHISIS.—The following is a convenient formula (*Quarterly Bulletin*) for the above:

℞ Agaricini (Merck) . . . gr. x.
Atrop. sulph. . . . . gr. j.
Ae. sulph. aromat. . . . . ♏ 1200.
Dissolve and filter.

S.—♏ x in syrup or simple elixir.

TO DISGUISE THE ODOR OF IODOFORM.—Dr. Graydon (*Med. News*) says the following will be found a satisfactory means of disguising the odor of the above useful, but disagreeable drug:

℞.—Balsam, canadensis,
Iodoformi, ... āā ʒ j.
Vaseline, ... ʒ vi.—S.

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FOR EAR-ACHE.—The *Med. Specialist* gives the following for ear-ache :—

℞—Morph. mur., ... gr. v.
Atropiæ sulph., ... gr. j.
Ol. oliv., ... ʒ j.
Glycerin. (neutral), . . . ʒ jss.—M.

SIG.—3 to 5 drops into ear, every hour, till pain ceases. Plug with cotton-wool after each application.

DR. CARL. FRIEDLANDER, the celebrated pathologist, died of phthisis, May 13th. His name will be remembered as the discoverer of the pneumococcus, the supposed specific bacillus of pneumonia, the nature of which disease has, since his discovery, received much attention from investigators in all parts of the world.

FORMULA for the administration of iodoform and creasote in phthisis. In *Nouveaux Remèdes*, Huchord gives the following as a convenient formula for the above drugs :—

℞—Creasote,
Iodoform,
Benzoin pulv., ... : . āā gr. ¾.
Balsam tolu, ... ɱ ¾.
For one sugar-coated pill.
SIG.—2 to 4 pills daily.

SOOTHING MIXTURE FOR CONSUMPTION.—Dr. J. B. Johnson, in *Med. and Surg. Rep.*, speaks highly of the following :—

℞—Syrup liquorice root, . . . ʒ j.
Aromatic syrup rhubarb, . . ʒ ss.
Fluid extract opium, . . ℥ j.
Liquor ammon. acetat., . . ʒ v.—M.

SIG.—Shake well. Dose.—A tablespoonful every two or three hours.

Books and Pamphlets.

A PRACTICAL TREATISE ON RENAL DISEASES AND URINARY ANALYSIS. By William Henry Porter, M.D., Prof. of Clinical Medicine and Pathology in the New York Post-Graduate Medical School and Hospital; Curator to the Presbyterian Hospital. One vol. 360 pages, 100 illustrations. New York: Wm. Wood & Co.

The author of this work, unlike many of the tribe of modern book-makers, has written because he had something, a good deal indeed, of his own, worth reading, to submit to the profession. The 1st part is devoted to the "Diseases of the Kidneys," and the 2nd, which is of equal extent, treats of "Urinary Analysis," by chemicals and microscopic research. The reader's interest will not slacken in the perusal. Dr. Porter is evidently not only at home in his subject, but he is also able to draw the reader there, and to entertain him pleasingly and profitably. The illustrations, numbering 100, are much better executed than those presented in many of the medical works at present issued by American publishers; they really do illustrate the text, instead of rendering it more obscure, as some of the perpetrations now met with, certainly cannot fail to do. Wm. Wood & Co. deserve high commendation for the respectable aspect of this book.

THE CURABILITY OF INSANITY, and the Individualized Treatment of the Insane, by John S. Butler, M.D., Hartford, late Physician and Superintendent of the Connecticut Retreat for the Insane, etc., etc., 1887. New York: G. P. Putnam's Sons. Toronto: Williamson & Co. Pp. 59.

An interesting little book. The writer makes many strong points in the individualized treatment of insanity, which he holds is as much called for as in the treatment of acute forms of other physical disease. The book is full of illustration, and will repay a perusal to those interested in the treatment of insanity.

FACTS AND FICTIONS OF MENTAL HEALING. By Charles M. Barrows, author of "Bread Pills," etc., 1887. Boston: Carter & Karrick. Toronto: Hart & Co. Pp. 248.

This is the first volume we have seen devoted to the instruction of the uninitiated into the mysteries of what is ordinarily called mind cure. It reads in part like the tales of a magician, and in part like the ordinary jargon of spiritualistic quackery of the nineteenth century. The author seriously quotes from letters, showing how scarlet fever was instantly cured, by the prayers of the father of the affected child; how a *dyspepsia* of many years' standing, was suddenly cured by humbugging the patient, and gives many other even more improbable cures by the mental method. If we had space we should like to give a few of the instructions from "leading authorities," in mental healing for the cure of disease, but "*le jeu ne vant pas la chandelle.*"

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OBSTRUCTED URINARY OUTFLOW.*

BY F. LE M. GRASETT, F.R.C.S., M.B. EDIN.,

Professor of Surgery, Trinity Medical School.

MR. PRESIDENT AND GENTLEMEN,—It is with somewhat mingled feelings that I stand up before this Association to read and perhaps provoke discussion on some surgical topic. I feel pleasure, I confess, at the honor of being asked to thus occupy your time for a short space, but the pleasure is modified by the thought that one more fitted to do this—one who had been asked and had accepted the work—has, ere the time came, been removed by death. I need hardly say I refer to the late Dr. Fulton, my predecessor in the Chair of Surgery in Trinity Medical School. It is not necessary for me, I know, to bear witness to the able manner in which this task would have been done by him. His experience and judgment in surgical cases had been steadily ripening by constant observation and study. But last year he spent a large portion of his time among the hospitals of Britain and the Continent. This, combined with his peculiar aptitude for, and his long experience in teaching, makes his loss as a professor of the science and art of surgery a marked one. As his substitute at a rather late date, when my hands were to be fully occupied in the preparation of a course of lectures for the coming winter session, I feel I can confidently claim the special indulgence of this Association.

The surgical field is now so wide, and yet is ever widening, that it is not an easy matter to choose from its ample fold a particular subject of moderate dimensions that it is interesting and profitable to discuss. I have ventured to bring the subject of obstructed urinary outflow before you, because it has several claims to our attention. It is a common affection in this country. What is common ought to come home to us all, ought to interest us all, seeing that it is not limited to the hospital surgeon, whose opportunities are larger, nor has it with us been marked out as a preserve requiring a special keeper. Rather it falls to the lot of every general practitioner. It frequently requires to be dealt with at once. Its urgency is, or may be, so great as to leave but scant time for consultation with books or even with a fellow-practitioner—the over-distended bladder prays for relief, and we are looked to for that relief as speedily as possibly.

Among all the causes of obstruction to the outflow from the bladder, two are specially prominent, and are most frequently the offending cause. They are stricture of the urethra and enlargement of the prostate.

Stricture as a Cause.—If we believe the statements of our patients as to their ailments, stricture of the urethra would be a very common affection; for many patients consult the surgeon, and when asked the question, What do you complain of? reply at once, I am suffering from a stricture, or a touch of stricture; but a little further questioning and examination shows no indication of such, the reason being that any discomforts in the act of making water, however trifling and temporary, is to their minds indicative of this complaint. I shall endeavour to regard stricture in its most practical, if not in its most exhaustive light as a cause of obstructed urinary outflow. There are three classes of stricture. The inflammatory group, which some surgeons decline to consider as a form of stricture at all, preferring to restrict the term stricture to the organic form alone. Yet, this inflammatory swelling of the urethral canal is an important factor, under two conditions, in producing more or less complete obstruction to the passage of urine. We meet with it in cases of acute gonorrhœa. The patient, a young man with his first attack, not estimating the importance of care sufficiently, disregarding the advice given him by his attendant surgeon, indulges freely in alcoholic liquors, at the same time unduly over-exerting and exposing himself to cold and damp, and

*Read before the Canadian Medical Association, Hamilton, Sept. 1st, 1887.

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even, perhaps, indulging in sexual intercourse, finds that he is suddenly unable to pass water at all. His outflow is obstructed—inflammatory swelling has closed his urethral canal. The surgeon is called upon for relief. The diagnosis is so plain that any surgeon, I think, after trying the effect of a warm hip-bath for some time and not obtaining relief, would not temporize any longer, but pass a soft, flexible catheter and relieve this retention.

In the other class are those who, having a permanent organic structure by much the same line of conduct, induce congestion of the urethra at the strictured part, and the small inconvenience of the permanent stricture is all at once aggravated into a more or less complete retention of urine. Here also the catheter is to be used.

Spasmodic stricture is the second group. Now and then the calibre of the urethra is narrowed by the contraction of the muscular fibres of the canal. It is met with in the deeper parts, for there the muscular bands are the most numerous. When pure, that is to say, not associated with inflammation nor a concomitant of organic stricture, it is due to some reflex irritation, temporary, as in cases of operation on the lower end of the bowel or verge of the anus, and in fractures of the femur; now and then more permanent, and then liable to be mistaken for real stricture, in those cases in which true organic stricture exists near the meatus, and as a result a spasmodic closure occurs by reflex irritation of the perineal muscles in the neighborhood of the bulb. Chloroform by causing relaxation of such strictures, indicates their origin. Should they produce obstruction to the urinary outflow, relief is easily obtained by the passage of a fairly large-sized catheter; for while the spasms may be an impediment to the outflow it ought to be no hindrance to the entrance of the instrument.

But the most interesting and practical stricture is the true organic stricture. Bearing in mind that, at rest, the walls of the urethra, by elastic and muscular contractibility are drawn closely together, that this position is maintained until the outflowing stream of urine separates them, or when an instrument is passed down the canal, it is easy to understand how a deposit of lymph round the canal of the urethra, at some point in the submucus and vascular tissue, and this deposit subsequently becoming rigid and contracted causes the natural distensibility of the canal over a limited area to be lost. The causes producing this deposit and its resultant stricture are gonorrhœa or some injury to the perineum, implicating perhaps the urethra directly, as falls, kicks or blows. Starting with a history of one or other of these causes to help us, we base our diagnosis on (1) smallness of the stream, depending on the narrowed state of the canal. I have often fruitlessly tried to get a clear answer from patients as to size of their stream. They can say if it is forked or twisted, which has comparatively little value, but they do not seem to notice the gradual diminution in the size, so I am in the habit of asking them to make water before me, so as to judge for myself. The splitting or twisting of the stream may depend on a narrowed meatus where no real stricture is present, and is not to be relied on as of much value. (2) Frequency of making water is nearly always present in cases where the stricture has existed for some time, and even in comparatively recent cases. (3) Pain, I find, a very varying and unreliable symptom, whether it be at the point of contraction or above the pubis—in this latter situation it depends on sympathetic cystitis. The whole of these symptoms taken together strongly point in the direction of stricture. Next, (4) the physical examination by the passage of a fairly large-sized catheter, No. 8 or 9, tells quickly if an obstruction exists, and also the exact site of such obstruction. As regards the endoscope as an aid in the physical diagnosis of structure I have no experience, but I think it is not likely to come into very general use at present, nor do I think the cases in which it would be really serviceable to be many. The presence of stricture being diagnosed, and its site made out, the next question is how to meet and abolish its being any obstruction to urinary outflow. This, in its entirety, is a very large question. It is not my intention to try and grapple with it fully. I would rather direct attention to one method that, I think, is worthy of being tried in many cases—I mean gradual interrupted dilatation, procured by the passage of sounds or bougies through the stricture, beginning at that size which will just pass through, and at subsequent times increasing the size of the instrument until the full calibre is reached without wounding the urethra. When passing instruments on the urethral canal, I think we would do well to bear in mind Sir Henry Thompson's simple axioms, viz.: That the

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use of instruments down the sinuous passage of the urethra with its delicate vascular walls lying in contact with each other is an evil—a small one, or a great one, according to the manner in which they are employed—and should not be used unless there is good reason to believe there is a greater evil present, which they may mitigate or cure; further, that as the passage of an instrument, even on a healthy urethra, is a source of irritation, no one should pass an instrument on another, until he has passed one on himself, for it is obvious that the amount of irritation will depend greatly on the manner in which it is passed, and also on the kind of instrument used. One object should be to effect gradual dilatation with the least possible irritation. With this purpose in view, what instrument or bougie should we choose? I must confess I have modified my views somewhat. In my student days I saw numerous cases of stricture in the surgical wards of the Edinburgh Infirmary, and Sir Joseph Lister—whom I specially followed—was a strong advocate of the rigid instrument. Of these, he had three different sets; one like the ordinary silver catheter, one short and straight set, and one which bears his name—the steel, conical bougie. Seldom did he, with one or other of these kinds, fail to dilate the stricture, however contracted or peculiar. Strongly prejudiced in favor of the rigid instrument at the outset, experience has compelled me to admit that, in many cases, much may be done by flexible bougies; further, I think that in all cases they should be given a trial first. As to the particular pattern of flexible instrument that is most useful, I cannot speak positively. I do not know any general rule that should govern, each case must be judged separately on its merits, the quality and site of the stricture being considered. At one time the English pattern, with its special quality, viz.: that when heated in warm water, and given any required curve, then plunged into cold water, that curve will be maintained—will be useful. On other cases it is easier to pass the French pattern, which is extremely flexible, and has a tapering point, with, or without a bulbous end. Probably, with the flexible ones we are more likely to succeed in strictures of recent origin that have not been irritated much, and in which the amount of inflammatory induration is not great nor firm. Failing with the flexible ones, I next try the rigid instruments—either the catheter pattern, or the conical, silver-plated steel instruments—using these last with great gentleness, remembering that I possess in them a powerful factor for good, when properly and discreetly used, but an equally potent factor for mischief, if carelessly used or abused. I find I need myself to continually remember this, for one's patience is at times severely taxed in difficult cases, due either to extreme narrowness, or some complication of false passages or other like obstruction—cases where after trying methodically, patiently, and gently, we find the instruments decline to enter, then the temptation is to use just a little force in what we might call the anatomical urethra, and with disastrous results.

How much should we endeavor to do at one time? As a rule, I think that as soon as we reach a size that is firmly grasped we have done enough for one day, and yet cases not infrequently report to us at the hospital that surgeons try and do pass instruments day after day for a lengthened period.

As to the lubricant to be used, I think few surgeons in the present day would use one that does not contain a germicide or antiseptic in some form, for the evidence is so greatly in favor of the view that decomposition of urine is due, in all cases, to the introduction of microscopic organisms from without, and that these organisms find their way into the bladder frequently by instruments introduced by the surgeon. If introduced, the consequences of putrefaction extending to the kidney are so grave that the surgeon who neglects to use them incurs a heavy responsibility.

I have tried cocaine as a local sedative to overcome the painful and disagreeable sensation during the passage of instruments, and also to thereby lessen the instinctive muscular spasm so produced. I find it acts very satisfactorily. Half a drachm of a four per cent. solution injected into the urethra, and held there some minutes, unquestionably facilitates the introduction of instruments. In one case, I am sure, it enabled me to pass a small instrument which I am doubtful if I could have done without using it. In another case it reduced much the fever following the use of instruments. In this case the stricture was the result of injury to the perineum by the patient's falling on the wheel of a carriage. An endeavor was made by a surgeon to pass instruments, but without success. Three or four days afterwards he

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came under my care, and with cocaine I passed No. 2.5 conical steel sound, and finding that he seemed to suffer very little I passed the rest up to No. 12.

After the first attempt his temperature at night rose to 105°, and he had great general discomfort. After the dilatation with cocaine anaesthesia, his temperature rose only to 101-3°, and the general discomfort was slight.

Strictures complicated with fistula in perineo I have also successfully dilated and temporarily cured. Cases which are due to loss of tissue, and constant inflammatory action over a considerable area of perineum, are not usually the most promising for simple dilatation, but frequently require some operative interference, urethrotomy, or generally external perineal section.

I said temporarily cured, because I think most surgeons find that, no matter in what manner the strictures may have been dealt with in order to effect a cure, such a state of full dilatation does not remain. Slowly, but certainly, the strictured part contracts and requires to be kept patent probably for the rest of the patient's life.

I have advocated in this paper but one method of treating strictures, and I have done so purposely. I believe that to the great bulk of practitioners in Canada this mode of treatment is most available, most simple, most safe; and in many cases of urethral stricture, especially those in the neighborhood of the bulb, I feel confidence in advising a trial of interrupted gradual dilatation. Again, the limits of such a paper as this forbids entering into the merits and demerits of all the ways and modes of treatment. I am aware that many may prefer to combine dilatation and internal urethrotomy, especially in tough undilatable strictures in anterior portion, or in those cases in which, owing to grave constitutional symptoms, which may occur as a result of dilatation compel it to be thus modified, or in cases where contractibility or resilience is strongly marked, and all our efforts at dilatation are neutralized by this peculiarity.

I am inclined to believe that internal urethrotomy is not yet undertaken by many, because they fear the possibility in unpractised hands of very serious consequences; for it cannot be denied that incision of the urethra is not infrequently followed by special dangers, chief among which are hemorrhage, urinary fever, extravasation, and abscess, as well as blood poisoning in all forms of pyemia, septicemia, phlebitis, embolism, and thrombosis. Others, again, neglect to give a trial to the simpler and safer method, preferring to incise each and every case of organic structure of the urethra, quite independent of site, character, or anything else. I do think that though I am privileged to open the discussion, and in doing so strongly advocate dilatation, our good president will not object to any member favoring us with his view on urethrotomy, internal or external; dilatation, gradual, or interrupted, or continuous; by splitting rapidly, by electrolysis or any other recognized method.

The second cause of obstructed urinary outflow that I propose shortly to review is hypertrophy or enlargement of the prostate—that disease incidental to advanced age, the morbid anatomy of which is sufficiently precise, but the etiology of which is unknown, affecting as it does all sorts and conditions of men, from the judge on the bench to the coachman on the box.

It is important to make the diagnosis as early in this case as possible, and to relieve by mechanical means at an early period also. I do not think this is sufficiently appreciated. It is not usually done as early as it might be. Let me give a typical case of delay in the use of the catheter:

C. S. G., aged 68, a particularly well made, healthy-looking man, consulted me for a pain in the eleventh interspace on left side, not far from the angle of ribs, and dribbling of water into his bed at night, generally between the hours of 5 and 6 a.m.; now and then in the day time into his trousers as well. Questioning revealed that during the day the calls to micturate were infrequent, but that he made water first thing on rising, after partially dressing again, and just after he was dressed, or three times in an hour, and a fair amount passed each time. The stream was normal in calibre, but not well projected, and towards the end dribbled a good deal. Chemical and miscroscopic examination of urine revealed nothing except that urine was rather light colored and of low specific gravity. He had quite distinct fulness and dulness in the hypogastric region; advised to have a catheter passed to relieve the bladder, but the idea was very distasteful to him, and he declined to allow its use, preferring to go to England and seek advice there. He first of all consulted a

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homœopathist; he said he had many such cases, but six weeks' trial of the remedies of that school failed to in the least degree benefit his case. Another medical man said, "I'll take the bow window off you," evidently thinking adipose tissue was the cause of the enlargement in the hypogastric region and not over-distention of the bladder. Another surgeon told him he had water in his bladder, and that he might require the use of a catheter. It was not until on board ship that he was persuaded by the ship's surgeon to allow a catheter to be passed, and though he went through a sharp attack of cystitis afterwards, and passed bloody urine even as dark as porter at first, he is now in good health, and for some years has passed water on every occasion only by the use of the catheter.

This condition of enlargement is to be suspected when the stream of urine becomes dribbling, and there is an obvious difficulty in emptying the bladder. Micturition especially frequent in the night or early morning, for it is after some hours of sleep or by taking of stimulating fluids freely that the frequent attempts to empty the bladder are made—perhaps a little pain before the act and none afterwards; no alteration in the character of the urine; no passing of blood. The diagnosis is completed by making the patient pass water before us. Then passing a catheter to ascertain how far the enlargement is a barrier to the exit of the urine for the quantity left behind, or residual urine at each act, determines the future treatment. One caution is necessary—it is often wise to ascertain a second time, by this passing of the urine, *ante oculo*, for the nervousness of the patient may produce a temporary inability to thoroughly micturate, and this gives us a false idea of his powers. If these symptoms are neglected or overlooked inconvenience follows, depending on over-distention of the bladder, and later on, from the same cause, cystitis, dilated bladder and ureters, and important renal changes.

Mere size of the gland is not of much assistance in diagnosis, for so long as the prostatic urethra is not encroached upon, the gland may assume considerable proportions by enlargement of the lateral lobes; while if the so-called middle lobe be only slightly enlarged, difficulty in micturition is sure to result, even if the enlargement is so small as to be undetectable by the surgeon per rectum.

It is useful to feel the gland per rectum in all cases to ascertain its size and general condition, which can easily be made out by the finger above and on each side; but I do not think anything is to be gained by introducing short-beaked metal sounds down the urethra and endeavouring to measure the amount of enlargement, and there is a decided objection to their use. Our diagnosis of hypertrophy being clearly made out, and also that this is acting as obstruction to urinary overflow, it may then be proper to direct and teach the patient to use an instrument at least once in the twenty-four hours. Catheterism being necessary, we select that form that will produce the least irritation. Trying, perhaps, first of all, a soft rubber catheter, Jacques' pattern, these sometimes slide in easily, sometimes they won't go in at all and no amount of persuasion or skill with instruments can make them. Or an English gum elastic, or French, olive shaped, may be preferred. Yet I think, of all the soft or flexible catheters, the one most likely to be the most serviceable and to pass the easiest, is the French catheter Coudèe. This is especially easy to pass if you keep the beak upwards and allow the catheter to ride into the bladder. If this fails withdraw it about an inch and rotate it on its axis, so that the beak points to the right—if you fail, similarly to the left, and see if it will not slip on into the bladder, for at times the passage is circuitous. Silver catheters are to be used if the soft ones fail, and the introduction of the left forefinger into the bowel is often of service by pressing the point of the catheter forwards.

That this catheterism is necessary is very plain to the surgeon for relief of the more or less complete retention, but should it unhappily be the starting point of serious and perhaps fatal illness, it is not easy to convince the friends of the patient that it is not because the catheter was used, but that it was not used early enough, that the illness is so grave.

I have seen a metaphorical illustration of this possibility by Mr. B. Browne, which I consider very apt: "An elderly man requiring catheterism for a partial or complete prostatic retention of urine may be looked upon as a blind traveller unconsciously approaching the brink of a precipice, and his surgeon may be compared to his friend, who, aware of the danger, hastens to [illegible]ance

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The friend must interfere or else the man is lost; but if he rush unskilfully to his aid he may cause him to stumble and so actually hasten his end, although by a very brief period of time; or the man may already have lost his equilibrium, the most skilful aid is unavailing and he falls, and in failing may drag his would-be saviour with him." In other words, the on-lookers, ignorant of the danger, may attribute the loss of the patient to the surgeon and his cathether, and the surgeon's credit, dear to him as his life, be gone. Therefore with regard to prostatic catheterism it is incumbent on us to act from the very outset cautiously and judiciously, that no one may have occasion to reproach us.

What is it, it may well be asked, that makes catheterism in these cases so fraught with danger at times. The reason is that it may be followed by fever of varying intensity. In one case slight, in another serious or even fatal. This causes us to further inquire: What is the cause of this fever that may be so serious? so that we may try and prevent it or lessen its severity. The starting point of irritation being the catheter, some have ascribed it to septic invasion of the kidney, due to the introduction from without of septic matter on the instrument. That this can and does happen I firmly believe. I like to carry it always in mind, and by my actions eliminate it as a cause, but that it is frequently a cause, I do not think.

Of course, if the urethra be torn or injured by the introduction of instrument, absorption of septic products might, and probably would, result in fever, just as a breach of surface anywhere in the body; but we know that this fever may follow the most skilful catheterism conducted with the most strict antiseptic precautions. The theory advanced, that this is due to absorption of urine, through the injured mucous membrane of the urethra, is not tenable either, except in the rarest of instances.

The most probable explanation is, that the fever is the result of shock to the sensitive excretory apparatus of the kidney through the nervous system. That the connection between the genito-urinary organs, and the cerebro-spinal and sympathetic nervous systems is extremely close, can readily be illustrated in cases where the shock of an instrument passed is sufficient to cause complete suppression of urine, even for 24 hours.

In many cases the shock to the kidneys is withstood, the resulting constitutional disturbance overcome, and the patient after a time recovers. In all cases, probably, this is the result where the kidneys are healthy at the time of catheterism; this is much more likely to be their state when the obstruction to the outflow has not existed very long. Now, I do not know how we can, by examination of the urine, tell what the exact state of the kidneys is, whether they are sufficiently healthy to bear the shock, so the lesson is brought home very clearly to us, "Use the catheter early in the disease."

I am aware some cases of enlarged prostate only suffer from occasional more or less complete retention, and therefore require only the occasional use of the catheter. The use of instruments will, sooner or later, be demanded in all likelihood by some strong emotion or sudden congestion, or other similar cause, rendering the bladder unable to expel its contents. But these cases are usually compelled in the end, as are the great majority of cases of enlarged prostate, to regularly use the catheter, and they require to be taught to pass it for themselves once, twice, or more frequently per day, and not to trust to the surgeon's visits.

We plan, then, our measures to reduce the shock of passing the catheter, occasional or habitual, as the case may be, to a minimum, and to do that I think we ought (1) To use a soft, flexible catheter, preferably the highly polished silken-webbed gum catheter of the Coudèe pattern. (2) To use an antiseptic lubricant, either carbolic acid and oil, or carbolic acid and vaseline, or Lund's oil, or some like preparation. (3) See that the catheter used by the patient is at all times kept most scrupulously clean. (4) Use some sedative to soothe the nervous system, either a single dose of morphia shortly before the passage of the instrument, or quinine and morphia administered in several doses for some days before. As a local sedative, cocaine, to me, does not seem so applicable as in cases of stricture, for it is to the deeper parts of the urethra chiefly that we wish it to be applied, and this cannot be done without using a urethral instrument.

One other point I would mention in these cases of prostatic disease. It is that the bladder, after the habitual use of the catheter, requires to be washed out. Urine in the later stages may accumulate in pouches, and the catheter may not be able to evacuate it entirely; it decomposes, and the unpleasant effects of this are best met by thorough irrigation of the viscus. In doing this, we should be careful not to allow the entrance of air into the bladder, nor to use any force with the injection. This is easily and conveniently managed by attaching to the catheter, already passed, a rubber injecting bottle, of the capacity of three or four ounces, by means of a piece of tubing, filling

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it completely, first of all, with the fluid to be used, warmed to the temperature of the body. The fluid may be a solution of borax and glycerine, or Barff's boro glyceride gr. xij. ad ℥i., or Hg. Cl_2. ½gr. to ℥i., or some other such. Inject not more than two ounces at a time, allowing it to run off, and then repeating the process as many times as desired.

One caution, too, in those cases where, by slow accumulation, there has been great distension of the bladder and a catheter is to be used, it is not wise to empty the bladder completely at one time, for fatal consequences even have followed such a course.

Lastly, those advanced cases where life is in danger, or at any rate existence is rendered miserable, due to the frequent calls for catheterism day and night, I do not propose to discuss. My friend Dr. Groves, of Fergus, at the last meeting of the Ontario Medical Association, favored us with the report of cases in which he had performed perineal incision, followed by very marked benefit. This, I believe, to be the best means of obtaining the requisite drainage, and superior to any supra pubic or rectal operation.

DOMINION MEDICAL ASSOCIATION. ABSTRACT OF THE PRESIDENT'S ADDRESS.

BY J. E. GRAHAM, M.D., TORONTO.

After thanking the Association for the honor done him, the President made some remarks upon the importance of Medical Associations, and quoted as follows from the report of the Committee on Organization, and presented at the recent meeting of the American Medical Association in Chicago: "The three objects of paramount importance to be accomplished by medical organization, are (1) The promotion of direct personal and social intercourse between physicians, by which mutual respect, personal friendship, and unity of sentiment are greatly promoted. (2) The more rapid diffusion of medical knowledge—scientific and practical—and (3) The developing, unifying, concentrating, and giving efficient practical expression of the sentiments, wishes, and policy of the profession, concerning its educational, legal, and sanitary welfare, and the relations of the latter to the community as a whole."

He then went on to speak of the great necessity for *unity* in the profession, and regretted that in Canada we are not in this respect on a par with other countries. Referring to specialties, the speaker believed that specialism would continue to grow and that it should be provided for. He then spoke of the losses the professsion had sustained by the death of prominent members during the past year, and this led him to the main text of his address, viz., "Overwork and its consequences, as exhibited in the lives of our medical men," upon which he spoke as follows:—

In these days of intense activity, we find frequent evidences of the effects of over-work in the members of the various professions and callings. In each profession, however, there are certain peculiarities, or peculiar methods of work, which are specially injurious to the human system. Of these, so far as they affect the medical profession, we wish to speak. The victims of over-work in our profession may be divided into three or four classes.

The first class may be illustrated by the following example:

A young physician enters into city practice, and, in his eagerness to succeed rapidly, engages in lodge and other contract practice. In this way he assumes at once work and responsibilities which ought to belong to riper years. Often, too, he acquires new patients by a spirit aggressive, and sometimes offensive, to his seniors. If he is a conscientious man he will become, more or less, intensely worried about his patients. He will constantly meet with cases entirely new to him, and will be in doubt as to the correct treatment to pursue. He is, at the same time, under the disadvantage of being considered a young man, and they who contract for the services of a physician are generally the most exacting and the most unreasonable. They often make remarks which are exceedingly galling to a sensitive nature. With this kind of practice there is always a good deal of night work. The patients are usually careless whether they send in the day or night so long as they have nothing extra to pay. If the young physician, as is often the case, falls into a large midwifery practice at the same time, his lot of drudgery—I was almost going to say slavery—is complete. For a few years he does not feel the strain, but sooner or later his constitution gives way. He is frequently subject to severe headache and palpitation of the heart. Symptoms of dyspepsia show themselves. He finds that he cannot

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endure night work so well, and feels a general want of strength. If he is wise he will either give up contract practice, or else take a long rest.

A second class of cases are made up of those who early acquire a large country practice. The instances of premature decay are not so frequent in this class, unless the person becomes addicted to stimulants. Although there may be greater fatigue connected with country practice, there is the compensating advantages of pure air and less worry, as the number of patients under treatment is necessarily fewer and expenses of living are less. Many, however, have in the meantime assumed the responsibility of supporting a family, and may not be in a position to give up any of their work. Sometimes they resort to stimulants. This pernicious practice can only have one result, sooner or later—utter and irretrievable ruin. In other cases, the physician works bravely on and is suddenly cut of by a pneumonia or by a typhoid fever, or some other illness, which could easily have been withstood if the system had been in a sound and normal condition at the commencement.

The third class in which we hear of the saddest effects of overwork is composed of those who settle in a large city, and who wish to assume the foremost positions as consulting physicians and surgeons, and to become eminent as teachers or authors.

A young man of this character, with little means, settles in a large city. He sets before him the following tasks : (1) He must make a living from the first. To do this he probably undertakes to teach students in grinding or quiz classes. This, when largely engaged in is exhaustive work. He also frequently does the night work of an elder practitioner, and loses as much rest as one in large practice. (2) He must acquire a reputation as a practitioner. For this purpose he becomes connected with as many hospitals and dispensaries as possible, spending several hours each day in a close and unhealthy atmosphere. (3) He must acquire a reputation as a teacher. For this end he, if possible, becomes connected with a Medical School, where he is expected by the older heads to do an enormous amount of work for little or no pay. (4) His tastes and ambition lead him to become an original investigator of disease, and he has the laudable design of adding to our stock of medical knowledge. To do this he pursues some line of clinical or pathological investigation—a work which may be exceedingly interesting but which must be carried on largely at night, thus robbing the enthusiast of hours which should be devoted to sleep. Then he desires a competence for himself and family. To some the fatal idea comes of becoming wealthy. As this cannot be be done in the slow way of ordinary practice, they engage in speculation, and we all know how fortunate doctors are when they enter that business. There are a few of extraordinary constitution who can bear up for many years against such a heavy strain, but they are few indeed. From constant and unremitting work symptoms of brain tire show themselves.

The physician complains of frequent headaches, becomes irritable, suffers from insomnia, and finds he is unable to do the usual amount of work, his memory fails, especially in details ; bodily weakness, indigestion, inactivity of the liver appear to warn him of his doom in the near future unless he changes his mode of life. Finding himself unable to work he takes a short holiday, feels much improved, returns to labor in the same way as before. Organic disease may now become developed. The heart becomes weak and irregular. Atheroma of the arteries and consequent apoplexy may lay him aside or may end his career. Bright's disease may show itself. If none of these organic diseases present themselves, the unfortunate may be cut off by some acute disease. Instances are not rare of degeneration of the nerve centres, with consequent melancholia and suicidal mania. This is not a fancy sketch, but one which could be substantiated by many instances. I will mention but one, that of the late Dr. Golding Bird. Dr. Routh, in his book on overwork, gives the following account of an interview with that distinguished man:—"I well remember a conversation I had with the late Dr. Golding Bird, a few weeks before his death. He was then in the zenith of his popularity, and recognized by all as one of the ablest of our London physicians. I called upon him one morning with a relative to consult him. Several other medical preceded me. His rooms were full, and I had to wait three hours ere I could obtain admission to his study and consult about the case. I congratulated him on his success in practice. 'Yes,' he said to me, 'you are right ; but I wish, nevertheless, to make your remark a text for a little parting advice. You see me at a little over forty in full

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practice, my rooms full, and making my several thousands per annum,' (I think he said seven), 'and if I die to-morrow I do not leave as many hundreds to my family. All this I have done by sheer perseverance, unceasing hard work, and no holiday. But I am to-day a wreck. I have fatal disease of the heart, the result of anxiety and hard work. I know I cannot live many months, and my parting words of advice to you are these, never mind at what loss, take your six weeks' holiday. It may delay your success, but it will ensure its development. Otherwise you will find yourself at my age a prosperous practitioner, but a dying old man.' Six months after this conversation he had put off this earthly tabernacle."

It is my opinion that in such cases it is not the scientific labor which is the cause of trouble, but it is the worry, anxiety and fatigue of family practice, in addition to the scientific work. We all know from personal experience how exhausting it is to visit, day after day, upon a serious case of illness, especially if the patient is a near friend, or one of distinguished position in society. The amount of vital capital lost in these cases cannot be estimated. It is a singular fact that the large majority of cases of overwork occur among consulting physicians. Surgeons and specialists do not suffer to the same extent. The reason of this is not far to seek. The amount of brain work done by the physician, as a general rule, is very much greater than that done by the surgeon or specialist. The work of the latter, in most cases, is largely of a mechanical nature, and a great portion of their time is spent in manipulation. It is otherwise with the physician. Let us for a moment follow him in his every-day work. He must first attend to his correspondence This is usually no slight task, especially if he answers all the letters sent by brother practitioners throughout the country asking for advice in the treatment of certain detailed cases. I hope you will pardon the digression while I make a few remarks on this point. Very often, in fact in the majority of cases, these letters of advice are sent and an answer expected without fee. To read the detailed history of a case, and to give an answer of any value, takes up the greater part of an hour, and incurs quite as much labor as any other consultation. A specialist in Toronto, who is very conscientious in answering these letters, has informed me that the task frequently requires him to remain at his desk until after midnight. The late Dr. Darwin Hudson, of New York, when I was last there, complained bitterly of the same difficulty. So much labor ought not to be imposed without remuneration. In case the patient is poor and unable to pay, the consultant or specialist would always be glad to be of any assistance without any reward. In many instances, however, we believe the patients are well able to pay, and the attending physician need only state his intention of consulting by letter, and ask for the fee to have his wishes acceeded to.

We will now return to our subject. After the physician has finished his correspondence he is ready to receive patients. Together with a number of minor cases he may have two or three of difficult diagnosis, which may bring into exercise all his resources. He will write a detailed history of each case and, perhaps, afterwards write his opinion and treatment in a letter to the attending physician. When he has finished a morning's work of this kind he is frequently so exhausted as to wish for the afternoon to rest. But he must then go to the hospital and, perhaps, for one or two hours he examines and tries to make clear to a class of students cases quite as difficult as those of the morning. He then visits his private patients. (On this continent we have yet very few purely consulting physicians.) This may occupy his time until six or seven o'clock. After dinner he works at his lectures or other literary matter, and is at the same time harassed by numberless interruptions until nearly midnight. Then he may, like all medical men, be called up at night, or, if allowed to sleep, wakes up perhaps tired to continue his ceaseless toil. Is it any wonder that so many break down under such a strain?

The development of specialties has also added to the work of the physician. He cannot act simply as a distributing centre, sending one patient to this specialist and another to that; but he must learn to diagnose and treat many local diseases himself. This entails upon him the necessity of acquiring a knowledge of most of the specialties; and now that familiarity with bacteriology is added as an almost necessary accomplishment, the field is too vast to contemplate.

Now what are the lessons to be learned from all this?

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1. That the rapid acquirement of a large and lucrative practice is often a great misfortune. It subjects the physician to the enmity of his older colleagues, often with and often without reason. It imposes burdens under which many fall, and it robs him of a happy and useful old age.

2. In the case of those who are ambitious to acquire professional favor for scientific work, the lesson is to avoid overwork. One ought not to try to become a noted physician and a rich man at the same time. It is a rare thing for a physician to amass a fortune, too rare to make it worth one's while to attempt it. A very important lesson is to notice the first admonition of a general breakdown, and to act upon the warning given. One of the best remedies is a prolonged holiday. This serves the purpose of giving the mind a complete rest. A long holiday is but of temporary benefit; the work must be cut down at home. Eight hours' sound sleep must be had at any cost. If the rest is broken by night calls it must be made up in the morning. Some part of each day should be devoted to recreation. These are difficult rules to follow out in practice, but they are quite possible when a determined stand is taken. Those who habitually overwork must remember that they are thus defeating the very object of their ambition. In the medical profession the best work should be done between forty-five and fifty-five. The late Dr. Flint did not issue his celebrated work on "Practice of Medicine" until he was over fifty. We know from observation that medical men in health are at their best during those years. This being the case, it should be the aim of an ambitious physician, above all things, to maintain his health and vigour, until he can reap the fruit of his earlier labor. The most satisfactory, the most lasting, and the best work is done by those who are careful not to overtax themselves, but who so arrange their business as to take that recreation which the body so much needs.

I would not close this address without referring to the opposite condition: the spirit of apathy and inactivity which blights many physicians' lives. It is far better to live an active life of usefulness, even if one should be the sooner cut off, than to pass through this world as a miserable drone, of little use either to the family or community.

Our active professional and business men, those who shape our destinies as a nation, frequently exhibit one trait of character which might almost be considered a failing, viz., the expectation of immediate results from their labor. This is particularly noticeable in our western provinces and territories. We work hard, and if in a few years the reward of our toil is not within our grasp we chafe under the disappointment, become discontented, and determine either to change the political character of our country, or remove to lands where fortunes are said to be more rapidly made. We have a vast territory, but one in which the material obstacles to rapid advance are great. These very difficulties ought to develop in us qualities of patient endurance and steady perseverance—qualities which will ultimately make this Canada of ours one of the greatest nations of the world.

Let us as physicians, not under the influence of haste and worry, but steadily and perseveringly, work in building up our own profession, so that in all matters which pertain to excellence we may be equal to that of the foremost nations.

NOTES OF THREE CASES OF PUERPERAL ECLAMPSIA.

BY A J. HARVEY, M.B., C.M., ED., ST. JOHN'S, NF'LD.

The three following cases of eclampsia may be of some interest, illustrating, as they do, the occurrence of convulsions in the gravid, parturient and puerperal states, and ending in recovery.

Case I. On the 7th September, 1885, I was called to Mrs. A., primipara, in the seventh month of pregnancy. She had been taken ill on the previous evening, but my services not being available she had been attended by another. During the night, and up to 10 a.m., had severe convulsive seizures, the later ones being very severe. She was unconscious, face swollen and distorted, feet œdematous; had previously complained of headache and swelling of extremities; had passed no urine since previous day, and a small quantity withdrawn was loaded with albumen; pulse full and quick. On vaginal examination the head was felt at the brim, no pains or dilatation. A hypodermic of morphine, ½ gr., was given at once, and two minims croton oil placed on the tongue. At 4 p.m., had no return of convulsions, and was somewhat more conscious; ordered a purgative enema, as bowels had not

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acted, and a diuretic mixture. In the evening, had been freely purged; consciousness improved and no more seizures; ordered a chloral enema and pulv. jalapæ co., by mouth. On the 8th she was better, pulse fuller, and some secretion of urine, increasing through the day; vomiting had ceased and some milk was obtained. The improvement continued daily, but urine continued albuminous for a considerable time. In a fortnight she was sitting up, her recovery being delayed owing to the condition of the tongue which had been badly bitten; a milk diet and iron were administered. She had felt no fœtal movements since the attack. On the morning of the 10th October, she was confined of a dead fœtus after an easy labor, and made a slow but perfect recovery, and is now enjoying excellent health.

Case II. Mrs. B., primipara, married in Feb., 1885, was taken ill on Sept. 10th, 1885, with convulsions. When I saw her at 6 a.m., she was in a semi-unconscious state, had two seizures since 5 a.m.; had been ill all night, with vomiting and headache, pain in the back and discharge of liq. amnii; legs œdematous, and of late, face had been swollen and general malaise; pulse rapid and rather full. I gave ½ gr. morphine hypodermically, and ordered strong purgatives. At 11 a.m., had two fits in the interval, not so severe; coma deeper. On vaginal examination, head was felt at the brim, os dilated and soft; gave a chloral enema. At noon os was more fully dilated, and, as another fit had taken place, applied Simpson's axis traction forceps, gave but a small quantity of chloroform as coma was deep, and delivered her of a full term living child with some difficulty. There was slight post-partum hemorrhage. There were no more convulsions and consciousness began to return. A diuretic was ordered and next day a pint of high colored albuminous urine was passed. After this the flow became abundant and the patient progressed rapidly and made a good recovery. The infant had several convulsions after birth, on the first day, but survived.

Case III. At 2 am., Dec. 5th, called to Mrs. C., secundipara, in the ninth month of pregnancy. Her father died very suddenly on the previous evening; she had visited his home afterwards and when there was taken with severe epigastric pain which continued after her return home. She had been unable to give vent to her feelings in the ordinary way and was complaining also of severe headache. Her previous health had been excellent and there was no indication of albuminuria. Labor had not set in and she was ordered a chloral and bromide draught. At 11 a.m., said she was better, but still had severe headache and epigastric pain. At 2 p.m. there were seizures of labor, and she was delivered at 4 p.m., easily. Chloroform was given; there was no hemorrhage and uterus was firm. At 8 p.m. complained of violent headache and loss of vision followed in a few minutes by a violent convulsion. I gave a ½ gr. morphine, hypodermically, at once,. At 10 p.m. had another seizure and was ordered a sedative draught. I did not see her during the night, owing to some mistake of the nurse who could not get a messenger, but at 7 a.m. was called to her, and was told that she had a succession of fits through the night alternating with periods of maniacal excitement, throwing herself about and trying to get out of bed. At this time she was very pale and haggard, pulse over 100, and weak, passing urine unconsciously. Gave another hypodermic of morphine, followed in half an hour by a chloral enema, as convulsions continued. After this she slept for two hours, when the enema was repeated, as patient was again getting restless. Urine passed freely, contained no albumen. She was kept under the influence of chloral, and when I saw her in the evening was conscious of her immediate surroundings, but had no recollection of the birth of her child or death of her father. She was kept in ignorance of this latter fact for a week afterwards, when as she was worrying with the idea that something was wrong, the news was again broken to her. Even after this she had no recollection of the events of that evening, except that she went to her father's house. She made a slow but good recovery. In this case the patient had enjoyed good health up to the time of her confinement, which was was somewhat premature, and there was no reason to suspect any renal mischief before or afterwards. The eclampsia seems to have been brought on by purely mental causes, operating at a time when the nervous system was excited and strained. The attacks were as violent and epileptiform as any I have ever seen. Such cases are, I believe, of the rarer forms of eclampsia in the puerperal state, but theri existence cannot be denied.

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The value of morphine hypodermically in the renal forms of eclampsia seems, in my experience, to be considerable, but in the nervous variety chloral seems to act most efficiently.

Correspondence

To the Editor of the Canada Lancet.

Sir,—Mr. Bryant in his excellent manual for the Practice of Surgery, states that "Dr. Crawford W. Long, of Athens, Georgia, was the first surgeon who in March, 1842, performed a surgical operation while the patient was completely anesthetized by the inhalation of sulphuric ether."

Those of your readers who have visited the thriving city of Boston must have noticed in walking through the public gardens, the neat and elegant monument erected to commemorate the introduction into medical practice of sulphuric ether as an anesthetic, and the first surgical operation performed under its use in the Massachussetts General Hospital in 1846.

Every day experience is bringing to light that what we are taught to believe were current historical historical facts, will not bear thorough investigation. It is quite easy to see how this could be in matters which took place at a very remote period; but in a question like the present, which had occurred within the lifetime of some persons, it is not easy to understand how there could be such a mistake. I have always been under the impression that ether was first used as an anesthetic in Boston, am at a loss to understand where Mr. Bryant got his information, but he states it as *a fact;* and of course a surgeon of so much practical experience and withal so cautious, must have positive and reliable information or he would not have said so.

It seems highly desirable that the history of anesthesia should be clear and reliable; and as I have no other medical work in which Dr. Long gets the credit of being the introducer of sulphuric ether for this purpose, it has occurred to me that some of your readers, or perhaps Mr. Bryant himself—if he ever reads your popular journal—might kindly throw some light upon the subject. At any rate it seems well worth ventilating in the columns of the Lancet.

C. H. L. Johnston.

St. John, N.B.

Reports of Societies.

THE DOMINION MEDICAL ASSOCIATION

The twentieth annual meeting of this Association took place in St. Paul's church school-room, Hamilton, August 31st and September 1st. There was a fair attendance from Ontario, and Montreal furnished a number of the profession, but the attendance as a whole was not what it should have been.

At 10 a.m. Dr. Holmes, of Chatham, took the chair. After a short address, he introduced the new President, Dr. J. E. Graham.

Dr. McCargow, the chairman of the local committee, then read an address of welcome, and extended to the visitors an invitation to a conversazione to be held that evening.

Dr. Graham replied, accepting on behalf of the Association the kind invitation given.

After routine business had been disposed of, the Association adjourned until 2 p.m.

In the afternoon Dr. McPhedran delivered the address on Medicine, on "The Pathological Conditions and Behaviour of Fluid in Empyema," which will appear in our columns in full in another issue.

The discussion was opened by Dr. Mullin, of Hamilton, who, after speaking of the difficulty of making an early diagnosis between pneumonia and empyema, cited cases to establish his views on the point under discussion.

Dr. Sheard, of Toronto, referred to the cases cited by Dr. Mullin, and believed that both conditions might have been present. The illness might have commenced as a pneumonia and terminated in empyema. He believed the temperature chart was a very important element in the diagnosis of empyema.

The discussion was continued by Dr. Teskey, of Toronto, who opposed the germ theory in this disease. He was of opinion that pus was simply necrosed exudation, the result of severe inflammatory process, and that the presence of bacteria was not a *sin qua non*. He was averse to the use even of the hypodermic syringe in exploring the chest, except in those cases where the diagnosis could be made in no other way. He thought that even so light a traumatism as the introduction of

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a syringe might determine the destiny of an exudation. One which might have remained serofibrinous, could in this way become purulent.

After some further discussion of the subject by Dr. Whiteman, of Shakespeare, the President, Dr. Graham, read the annual address, the major portion of which appears in this number.

The address on Surgery was then delivered by Dr. Grasett. It appears in this number. Dr. Hingston, of Montreal, and Sir James Grant, of Ottawa, took part in the discussion of the paper.

In the Medical Section, Dr. Macdonell, of Montreal, read a paper on "Knee-jerk in Diphtheria," in which he stated that, of eighteen severe cases of diphtheria which he had under his care in the Montreal General Hospital, the knee reflex had been absent on the day of admission in ten cases. He believed that in many cases absence of this reflex is the only sign of nervous disturbance, that it often precedes other nervous symptoms, and remains after they have disappeared. His conclusions are:—(1) That in a considerable number of cases knee-jerk is lost from the first beginning of the disease, and thus affords a valuable means of the diagnosis of the nature of the throat affection. (2) That loss of knee-jerk is the first evidence of the disease having attacked the nervous system. (3) Absence of the knee-jerk has no influence on the prognosis.

Dr. W. H. B. Aikins then gave some interesting facts relating to the epidemic of Anthrax at Guelph, and a paper on the "Detection of Typhoid Bacilli in Drinking Water."

In the Surgical Section, Dr. Malloch, of Hamilton, read a "Report of Nineteen Cases of Tracheotomy in Diphtheritic Croup." He advocated: 1. The high operation. 2. Frequent cleansing of the tube with a solution of sodæ carb., followed by one of bichloride. 3. Early operation.

After much interesting matter, given by Drs. Atherton, of Toronto, Trenholme, of Montreal, Bell, of Montreal, Dr. Malloch closed the discussion.

Sept. 1st.

The President took the chair at 10 a.m. After routine business, it was moved by the President, seconded and carried, that Drs. Ross and Stewart, of Montreal, and Graham, of Toronto, be appointed a "Committee on Organization," to consider the best means of maintaining and increasing the usefulness of the Association, and report at next meeting.

Dr. Eccles, of London, then gave an excellent address on "Subinvolution of the Uterus." It provoked an animated discussion, which was taken part in by Dr. Powell, of Ottawa, Dr. Cameron, of Montreal, Dr. Trenholme, of Montreal, Dr. Holmes, of Chatham, and Dr. Bantock, the celebrated surgeon of London, England, whose contributions to the *Lancet* have made his name well known in this country. He did not recommend the use of such powerful agents as nitric acid, which he believed was a dangerous remedy in many cases. Neither did he advocate excision of a part of the cervix as a necessary procedure. He used applications of iodine and glycerine in varying strength, corrected existing misplacements, and in some cases of lacerated cervix adopted Emmet's method.

At the special request of the members, the paper of Dr. Gardner, of Montreal, on "The Year's Work in Abdominal Surgery," was transferred from the surgical section to the regular session. Dr. Gardner is an ardent admirer of Dr. Bantock, and after the reading of his paper, in which a number of exceedingly interesting cases in abdominal surgery which had come under his notice were fully described, Dr. Bantock consented to deliver an impromptu address before the Association, taking as his text some of the points raised by Dr. Gardner in his paper. He deprecated the giving of opium and stimulants after cases of abdominal surgery, and also took occasion to object strongly to men performing such operations, unless they have extended knowledge and experience in this class of surgery. He advised young men who get such cases to send them to older practitioners having large experience. When he himself began the treatment of cases in abdominal surgery, he was unsuccessful in nineteen cases in the first hundred, while in later years the ratio was only about one per cent., showing that practice and experience is an important factor in this description of surgery.

Dr. Rosebrugh, of Hamilton, and Dr. Hingston, of Montreal, followed with further illustrations and descriptions of cases, and then Dr. Bantock answered a number of special questions from the members present.

The Association then adjourned until 2 p.m.

At 2 p.m., the President being in the chair, Dr. Stewart gave an address on "The Present State of Cardiac Therapeutics," of which the following is an abstract:—The means to be employed when treating an acute inflammatory process of the endocardium is to give as much rest as possible to the inflamed valves, and in order to effect this, measures must be taken to lower the blood pressure. To accomplish this, the patient should have complete bodily rest in bed and have as little fluid in his diet as possible. During the continuance of

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compensation in cardiac disease all is well, but one of the first signs of failure is shortness of breath. In cases of this description a German theorist, Oertel, taking the view that the heart is a muscle, and consequently will be strengthened by anything that strengthens the muscles, advises violent and continued exercise to cause palpitation of the heart. He also recommends the keeping up of a good state of nutrition, by a diet rich in albumen, and when diaphoresis is not obtainable by exercise, he recommends Turkish baths. Great stress is laid on the importance of preventing fat formation, especially in cases after the restoration of a previous loss of compensation. By following this course of treatment, it is claimed that a patient may maintain his original state, dating from the early compensation, for many years. The exercise should not be overdone, however, and should always be followed by a period of rest. Dr. Franz thinks that there is no danger whatever in patients with heart disease exercising as long as the palpitation induced thereby is quickly relieved by taking forced deep inspirations, which diminish the increased tension brought about in the pul monary vessels. Other physicians recommend judicious exercise, but not of so extreme a kind as Oertel advises. In the opinion of the speaker, it is more adapted to cases of commencement of fatty degeneration and cases of threatened heart failure from deformity of the chest or disease of the lungs. There is a time in cases of loss of compensation where exercise is no longer possible and where medicinal agents have to be resorted to. Of all these agents none is to be compared to digitalis, but there is a very imperfect knowledge among many practitioners of how and when digitalis should be used. The essential therapeutic action of digitalis consists in its power of raising the blood pressure; this increases the secretion of urine; the effused fluids are absorbed from the cavities and tissues of the body, and the respiratory distress disappears. So long as digitalis continues to increase the secretion of urine it is safe to use it, because in health digitalis has no such influence. In cases of dangerous heart failure the patient should, to secure the best results, have absolute rest in bed, combined with digitalis in full doses.

The Association then divided into sections. In the medical section, Sir James Grant read a paper on "Renal Calculus and Cheyne-Stokes Respiration." Specimens of calculi were exhibited.

Dr. Buller then read an exhaustive paper on "Headaches in connection with certain Optical Defects." He believed that headache was frequently caused by an abnormal condition of the superior and inferior recti.

Dr. Macdonell, of Montreal, then read an able paper on "Thoracic Aneurism." He believed that the best results may be obtained with iodide of potassium, with quiet and generous living. He cited some interesting cases, showing the favorable results of such treatment.

Dr. Campbell, of Seaforth, read an interesting paper on "The Albuminuria of Pregnancy," and the following papers were accepted as read: "The Treatment of Pneumonia," by Dr. Bruce Smith; "A Physiological Basis for an Improved Cardiac Pathology," by Dr. Mills, of Montreal.

In the Surgical Section, Dr. Cameron read a most interesting paper, entitled "Some Practical Points in Aseptic Midwifery." He believes that the direct cause of puerperal fever are germs. He advocates the adoption of every means to prevent the invasion of the enemy. But if the germ has entered and symptoms are showing themselves, douche out the uterus thoroughly; if this fail, curette to bring away any clot, membrane, or placenta. If these means do not control the fever, attend to the nourishment and stimulation.

A discussion on the paper was taken part in by Drs. McCargow, of Hamilton, Wright, of Ottawa, Dupuis, of Kingston, Taylor, of Goderich.

Dr. Hingston, of Montreal, gave an excellent address on the "Removal of Naso-pharyngeal Tumors," which we hope to give our readers in another issue. Then followed a paper by Dr. Johnstone, of McGill College, on "Puerperal Peritonitis"; one by Dr. Dupuis, of Kingston, on "The Removal of the Astragalus," and one by Dr. Sweetnam, of Toronto, on "Stricture of the Rectum."

Section adjourned.

The Association resumed its session, the President in the chair. The President stated that he had received the Report on Hygiene from Dr. Cassidy. Owing to want of time, it was taken as read.

Votes of thanks were tendered to the President, Secretary and Treasurer, and to the profession in Hamilton for their great kindness and courtesy. A vote of thanks was also given to the authorities of St. Paul's church for the use of the school-room.

During the afternoon session, the following were elected officers for the ensuing year:—Dr. George Ross, Montreal, President; Dr. James Bell, Montreal, General Secretary; Dr. Charles Sheard, Toronto, Treasurer.

The following local officers for the several Provinces were appointed:

For Ontario—Dr. Eccles, London, President; Dr. J. A. Grant, Jr., Ottawa, Secretary.

For Quebec—Dr. Christie, Lachute, President: Dr. Armstrong, Montreal, Secretary.

For New Brunswick—Dr. Currie, Fredericton, President; Dr. Lunana, Campbelltown, Secretary.

For Nova Scotia—Dr Nickwin, Halifax, President; Dr. Trueman, Sackville, Secretary.

For Manitoba—Dr. Blanchard, Winnipeg, President; Dr. Chown, Winnipeg, Secretary.

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For British Columbia—Dr. N. True, New Westminster, President; Dr. Milne, Victoria, Secretary.

The next place of meeting will be Ottawa.

PROCEEDINGS OF THE NINTH INTERNATIONAL MEDICAL CONGRESS.

SECTION OF GENERAL MEDICINE.

Monday, Sep. 5th, 1887.

The President, Prof. A. B. Arnold, of Baltimore, read an opening address on "The Practice of Medicine at the Present Day."

The next paper was entitled "Some Suggestions upon the Pathogenesis of Yellow Fever," by Dr. Ignacio Alvarado, a delegate sent by the Mexican government.

The third paper was upon "Pneumonia, as met with in various parts of Canada," by Prof. Walter B. Geikie, Dean of Trinity Medical College, Toronto. A somewhat lengthy and most interesting discussion took place after the reading of this paper, during which many practical matters of great importance were brought out.

SECTION OF GENERAL SURGERY.

The section of General Surgery was opened by an address by its President, W. T. Briggs.

The section having been formally declared open by the President, Dr. C. I. Parkes, of Chicago, presented a paper entitled "A Contribution to the Study of Gun-Shot Wounds of the Intestines."

Dr. N. Senn then presented a paper entitled "A Contribution to Experimental Intestinal Surgery," and presented numerous specimens showing the great advantages gained by making intestinal anastamosis rather than resection, in case of intestinal injury. The paper called forth rapt attention from the audience, and Dr. Senn was allowed to speak for more than hour, instead of the legal twenty minutes. The subject was too elaborate to be briefly reported, but the coming report in the published transactions of the Congress will be eagerly awaited.

SECTION OF OBSTETRICS.

The Obstetric section was opened by an address from Prof. Miller, its President, on 1, "The due Restriction of the Operation of Craniotomy"; 2, "The Careful Diagnosis of Extra-Uterine Pregnancy"; and 3, "The Desirability of Rendering the Condition of Patients during the Puerperal State Aseptic, and doing this safely." Then

Dr. J. Braxton Hicks, of London, England, had sent his paper "On the Contractions of the Uterus throughout Pregnancy, and their Value in the Diagnosis of Pregnancy, both Normal and Complicated," which was read by Prof. Earle, of Chicago. The paper presented in detail five points: 1. During the whole period of pregnancy, contractions of the uterus occur at intervals of from five to twenty minutes, which last for from three to five minutes. 2. If external palpation is made during contraction, the uterus will be felt hard and distinct; if during relaxation, it will be felt soft and indistinct. 3. This phenomenon is of value in the diagnosis of normal pregnancy from tumors. 4. The physiological importance of the contractions is to empty the uterine veins of the carbonized blood. 5. There is a constant relation between the presence of the carbonized blood in the uterine veins and the movements of the fetus, and between the latter and the uterine contractions.

Dr. Duncan C. MacCallum, of Montreal, presented a paper on "Vicarious Menstruation."

Prof. T. Lazarewitch, of St. Petersburgh, sent a pair of forceps and a paper describing them, which was read by Dr. Jaggard.

SECTION OF THERAPEUTICS AND MATERIA MEDICA.

Opened by an address by Dr. Phillips, the Vice-President.

Dr. J. M. Carter, M.D., of Waukegan, Ill., read a brief synopsis of the "Medical Botany of the United States," including 140 orders, 620 genera, and more than 1300 species, which are indigenous in the United States.

Dr. J. E. Stewart, of Wilmington, Del., read—"A proposed investigation of the Materia Medica of the world, by the government of the United States.—A plan to promote progress in the science of drugs."

SECTION OF MILITARY AND NAVAL SURGERY AND MEDICINE.

The President, Henry Hollingsworth Smith, M.D., delivered an address on "The Influences of the Geographic and Social Characteristics of the United States upon its Military Service, especially its Medical Staff."

The first paper called was, "On a Short Scheme

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for Water Analysis in the Field," by Francis Patrick Staples, M.K.Q.C.P., Ireland; M.R.C.S. England; surgeon and major in H.M.A., Aldershot camp.

The next paper, "On the Necessity of a More Careful Examination of the Water Supply of the Military Posts, when an Unusual Amount of Sickness Prevails, and Examination of Hygienic Surroundings," by Morse K. Taylor, M.D., major and surgeon, United States Army.

The next paper was "On the Best Ration for the Soldier," by Jos. R. Smith, M.D., Brevet-Colonel, Lieutenant-Colonel, and surgeon, United States Army.

A paper on stretchers and slings, by John A. Macdonald, M.D., M.R.C.S., England, was read by title by Dr. Lloyd, who presented the stretcher and sling, and explained its *modus operandi*.

Dr. Valney Harvard's paper on stretchers and stretcher drills was read by title.

The next paper read was on hospitals and other huts, by Dr. Jeffrey A. Marston, M.R.C.P., England.

The next essay was on the construction of field hospitals as illustrated in the depot field hospital of the Army of the Potomac, at City Point, Virginia, in 1864-65, by James Collins, M.D., formerly brevet lieutenant-colonel and brigade surgeon of volunteers during the war of the rebellion, with drawings and diagrams.

SECTION OF DENTAL AND ORAL SURGERY.

The President, Dr. Jonathan Taft, of Cincinnati, delivered the presidential address, which was devoted to a history of the "Rise and Progress of Dental Surgery in the United States."

The President's address was followed by a paper by Dr. R. J. Porre, Cincinnati, entitled "Chronic Pyemia of Dental Origin."

SECTION OF ANATOMY.

President, Dr. William H. Pancoast, Philadelphia, Pa.

The first paper was presented by Dr. Joseph M. Mathews, of Louisville, and was entitled "The Anatomy of the Rectum in Relation to the Reflexes."

Dr. A. L. Ranney, of New York, next read a paper, entitled "Does a Relationship exist between Anomalies of the Visual Apparatus and the so-called Neuropathic Tendency?"

Owing to the absence of Dr. Wile, his paper, entitled "Which shall be the Site of a Urinary Fistula?" was read by Dr. Berry.

SECTION OF PHYSIOLOGY.

President, John H. Callender, M.D.

The first paper presented was by Daniel Clark, M.D., on "The Basal Ganglia of the Brain as Centers of Psychic and Functional Power."

The next paper was by Dr. Richard Caton, of Liverpool, England, read by Dr. Stockman, of Edinburgh. The title of the paper was "Researches on Electrical Phenomena of Cerebral Gray Matter."

SECTION OF MEDICAL CLIMATOLOGY AND DEMOGRAPHY.

Albert L. Gihon, M.D., Medical Director, United States Navy, President, read an introductory address on "The Domain of Climatology and Demography as Dependencies of Medicine."

The second paper was by Dr. George H. Rohé, of Baltimore, on "The Meteorological Elements of Climate and their Effects upon the Human Organism."

Dr. W. Thornton Parker, of Newport, R. I., read the third paper, upon "The Importance of the Study of Climatology in connection with the Science of Medicine."

SECTION OF OPHTHALMOLOGY.

President, Prof. Julian J. Chisholm, of Baltimore.

Dr. Mooren, of Dusseldorf, read a paper on "Eye Troubles in their relation to Occipital Disease."

Dr. Ole Bull, of Christiana, Norway, read a paper on "Pathological Changes in the Retinal Vessels."

Dr. Leartus Connor, of Detroit, read a paper on "Hot Water in the Treatment of Eye Diseases."

SECTION OF PUBLIC AND INTERNATIONAL HYGIENE.

President, Dr. Joseph Jones, who delivered an interesting opening address on "The Causes and Prevention of Disease."

SECTION OF DERMATOLOGY AND SYPHILIS.

President, A. R. Robinson, M.D., New York.

At the conclusion of the President's address, Dr. William Welsh, of Philadelphia, read a paper entitled "Vaccination during the Incubation Period of Variola."

The second paper read was "Rectal Alimentation and Medication in Diseases of the Skin," by Dr. John V. Shoemaker.

The third paper presented was "On the Occurence of Ulcers Resulting from Spontaneous Gangrene of the Skin during the Later Stages of Syphilis, and their relations to Syphilis," by Dr. Herman Klotz, of New York.

LARYNGOLOGY.

President, Dr. W. H. Daly.

In his address, Dr. Daly emphasized the propo-

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sition he made at the last International Medical Congress, "That the laryngologist of the future must be more the rhinologist, and the rhinologist more the surgeon than the physician."

Dr. R. H. Thomas, of Baltimore, read a paper upon "The Causes and Treatment of Hay Fever."

Dr. Klingensmith read a paper upon the same subject.

These papers were fully discussed.

Dr. Ingalls introduced the subject of Epistaxis, stating that ordinary cases require but little treatment, often being nature's safe-guard in plethoric subjects.

SECTION OF DISEASES OF CHILDREN.

President, Dr. J. Lewis Smith, of New York City.

The first paper on the programme was "Cerebral Irritation in Children," by Dr. Jules Simon, Paris, France. Dr. Simon was unable to be present in person, and the paper was read by Dr. Judson, Vice-President of the Section.

Second paper, "Deleterious Results in Children of a Narrow Prepuce and Preputial Adhesions," by Prof. Lewis A. Sayre, M.D., New York City.

Dr. de Saint-Germain, of Paris, contributed "Not a Stone for the Edifice; Not Even a Pebble, But Only a Grain of Sand." His short paper ably advocated ignipuncture of the tonsils in place of tonsillotomy. He inserts the thermo-cautery to the depth of three-eighths of an inch, repeating the operation every week, and at the end of three or four weeks the tonsil is reduced to an insignificant stump.

He also in a brief surgical note advocated the substitution of dilation of the prepuce with Nélatons' dilator for circumcision, the operation to be followed by daily massage of glans and prepuce.

A paper entitled "An Investigation to Determine whether the Absence of Sewerage and of Water Pollution Diminishes the Prevalence and Severity of Diphtheria," by Dr. Chas. Warrington Earle, Chicago, Ill., was read.

SECTION OF GYNECOLOGY.

President, Dr. Henry O. Waray, Boston.

After a few remarks by the President, Dr. Nathan Bozeman, New York, read a paper on "Artificial and Combined Drainage of the Bladder, Kidney, and Uterus through the Vagina, with and without Graduated Pressure in the Treatment of Vesical and Fecal Fistulæ."

A paper on "Sterility," by T. More Madden, of Dublin, Ireland. Read by Dr. S. W. Cushing.

We have given above a list of the papers read at the several sections during the *first day only*, Monday, Sept. 5th. And this list by no means shows the amount of work done on that day, for cases were reported, discussions took place, and new instruments and diagrams were exhibited and explained, making each day's work at once most interesting, and at the same time covering a great deal of ground.

OUR NEW YORK LETTER.

TWELFTH ANNUAL MEETING OF THE AMERICAN GYNECOLOGICAL SOCIETY.

The American Gynecological Society held their 12th annual meeting on the 13th, 14th and 15th of September. The papers this year were unusually good, as indeed the names of some of the readers, as Drs. Fordyce Barker, Emmett, Mundé, Lusk, Parvin, Skene, and Bantock, of London, of ovariotomy fame, testify. A great many gynecologists of note staid over from the International Congress to attend and take part in the discussions, and we had the pleasure of seeing and hearing such able authorities as Professor Simpson, of Edinburgh, Drs. Bantock and Grailey Hewitt, of London, Martin, of Berlin, of hysterectomy fame, Unna, of Hamburgh, etc., so that this year's meeting was especially interesting and profitable.

Among other papers was one on "Cysto-Colpocele complicating Labor and Pregnancy," by Dr. Busey, of Washington. The doctor pointed out that this condition was one that demanded far more attention from obstetricans and obstetric writers than it has received so far. Although it is a very rare condition his reported cases and those of one or two gentlemen who took up the discussion shewed it to be a very grave one. He describes the tumor as a soft, yielding, pediculated cyst, suspended from the anterior vaginal wall, generally pear shaped and varying in size from a small egg to a child's head, that this tumor may be mistaken for the bag of membranes or a hydrocephalic head is very likely, but when the os is felt for it can not be found, having been pushed up beyond reach. The practical point is that this condition may come on days and even weeks before the term, and may so closely simulate labor as to cause the accoucheur a great deal of uneasiness, so that he may even undertake some operative procedure. Dr. Busey quoted one of his cases, occuring a month before labor, and Dr. Bookell a case occurring some days before. The abnormal distention of the bladder and the foreign body in the vagina causing pains very much like labor

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pains, but differing from them in being more frequent and of a more tearing, tenesmic nature. If this complication should occur during labor it will protract it, more by its reflex, nervous influence, creating false unavailing labor pains, than by its mechanical obstruction. This is shown in the treatment, for after catheterization the uterus descends, the pains change their character to true uterine pains and labor continues.

On scarcely any other question in surgery is there such a diversity of opinion as there is on the question of drainage after laparatomy, as was shewn in a paper on this subject, read by Dr. Paul F. Mundé, of New York. Dr. Mundé believes that all uncomplicated cases do better without a tube, that after thoroughly cleansing the abdominal cavity the absorbent power of the peritoneum is enough for all oozing. He was supported by Dr. Martin, of Berlin, who has discarded the tube except in his hysterectomies and when there is a large ulcerating surface; in both of these cases he drains through the vagina. But Dr. Bantock is a strong champion of thorough drainage, and certainly his very flattering results are enough to confirm his opinions. Out of his last 104 ovariotomies he has only lost three patients, and out of his last 78 he has only lost one. He thinks the reason that others have not had such good results with the tube is because they do not empty them often enough. He uses a straight glass tube which he empties every two hours, and leaves it in until the fluid that comes away is clear serum.

Of course both sides of this question have their advocates, and will have for a long time to come, until a wider knowledge decides for or against the practice, but it certainly does seem that a patient with a tube in, when changes can be watched and hemorrhage detected, is much safer than one without, even barring the accidents of formation of pus, or fistulæ, or peritonitis—all possible effects of the tube.

In a paper by Dr. C. D. Palmer, of Cincinnatti, on "The Therapeutic Value of some Medicines in the Treatment of Hemorrhagic Conditions of the Uterus," the therapeutical qualities of ergot, arsenic, iron, hamamelis Virginiana, virburnum prunifolium, etc., were discussed. Although ergot stands at the head of the list, especially when a immediate action is required, and in the case of a large boggy uterus, the result of subinvolution, there is probably nothing better; still the hamamelis and viburnum have a great reputation among the Americans, both from clinical evidence and from their supposed specific action in constringing the venous walls. Arsenic too was highly spoken of, particularly in those chlorotic cases with a malarial taint. Fordyce Barker's treatment of such is, to put them on three or four ♏. of Fowler, three times daily during the intermenstrual periods, and treat with quinine during the flow. Dr. Lloyd Roberts, of Manchester, and Dr. Bantock both hold to the good old ergot.

Dr. Parvin, of Philadelphia, read a paper urging the use of antiseptics in private midwifery practice, and showed that by using compressed tablets or capsules of bichlorids or other antiseptic, and dissolving them in water, at the bedside, the danger of the patient would be very much lessened, and the accoucheur's reputation correspondingly bettered. He says he always uses them, and we had the testimony of several obstetricians of note to show how beneficial they were. Prof. Simpson threw out a good suggestion on this subject; it is that the residues from all degenerated tissues were mainly in the shape of fatty acids, and from chemical experiments it was found that spirits of turpentine would very effectually dissolve these fatty acids, therefore it was the practice of himself and a great many other English and Scotch obstetricians, to carry a little bottle of turpentine in their obstetric bags, and rubbing their hands well with this, then washing them with soap and water, and afterwards in the antiseptic solution, before ever attempting to examine a woman in labor. This cleans the hands of all impurities, the result of examining old wounds, ulcers, etc., which every one is continually coming in contact with, especially the general practitioner.

Canuck.

Selected Articles.

PROPRIETARY MEDICINES — SHOULD PHYSICIANS PRESCRIBE AND RECOMMEND THEM?

"Should the physician use in his daily practice a 'proprietary' medicine? Can he, as a reputable practitioner, recommend these preparations in his correspondence with medical journals, without lowering the dignity of his profession or making himself amenable to discipline for a violation of time honored principles of medical ethics?"

These questions have been put to this journal, and perhaps to others, with the request that they be answered editorially; and while, as put, they are very broad, admitting of much latitude in replying, we think we but voice the general opinion of those who have give the subject any thought, in answering both of them, in a general way, in the affirmative.

The gist of the whole matters depends upon what is meant by the term "proprietary medicine." In its limited and best sense we understand by the term a remedy of which the ingredients and their proportions are made known to the profession, and the trade or proprietary name of which is

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alone protected by law. When such preparations are made exclusively for the use of the medical profession and are advertized exclusively in medical journals we cannot see any possible lowering of professional dignity or deviation from "time honored principles of medical ethics" on the part of the physician who uses them in his daily practice or who recommends them in his communications to medical journals.

The name, in this class of proprietary medicines, is to be regarded simply as the guinea's stamp—a guarantee of the purity and genuineness of the product, and the registration of it—patenting it, if you please, is as much for the protection of the physicians who use it as for the parties who manufacture the remedy. It in no sense makes the drug a "patent medicine" any more than does the writing of "Fairchild" before pepsin, "Merck" before or after an alkaloid, or "Schering" or "Squibb" before chloroform, transfer these chemicals into that category. These men Merck, Schering, Fairchild, Squibb, and a few others, have devoted their lives and spent enormous sums of money in making their products the purest and best that can be attained by human honesty and human ingenuity; and as a reward their names attached in *copyrighted labels* to their chemicals stand as a perpetual guarantee to the physician and patient against the fraud and greed of less honest manufacturers, and it would be a great injustice to them as well as to the profession and public to deprive them of this guarantee.

The question may be, and frequently *is* asked by the purists, usually by the very old, or by very young members of the medical or pharmaceutical profession, aspiring to be considered very scientific, "why should a physician resort to these ready-made prescriptions at all? Why does he not draw upon his own knowledge of applied therapeutics and write out his own formulæ in every c se? Why does he prescribe this one's sugar-coated pills or that one's gelatin-covered granules?"

Why, indeed? Simply because he knows that these articles, being made in vast quantities, by improved apparatus and appliances, manipulated by highly trained and educated employés, and directed by skilled chemists, can be made better, more accurately and far cheaper than they could be compounded by the most skilful prescriptionist. He does it for the same reason that he buys a watch ready made from the jeweler, or a buggy ready made from the carriage maker.

The most serious charge that is brought against the makers of some of the best known, most valuable and most frequently used proprietary medicines, is that the formulæ given by the manufacturers are not the true ones, or, as Dr. Craighill, of Lynchburg, Va., in a paper read before the Virginia Pharmaceutical Association, at its last May meeting (published in the *Virginia Medical Monthly*, for June, 1887), puts it, "a patented proprietary remedy which professes to publish its formulary, *but does not.*" If this charge were true, it would indeed be a grave one and a just cause for the banishment of such medicines from the list of those which the physician may use "without lowering the standard of professional dignity," etc.

But when we examine into the matter, we find the sole ground for the charge to be that when the ingredients as named are put together by the physician himself, or by the prescriptionist, off-hand, though it may be *secundum artem*, the result frequently differs very widely from the preparation which it is intended to imitate. This fact would go far to prove the charge did we not remember that in all chemical processes *manipulation* has a great deal to do with results, and that the *element of time* has a value that nothing else can supply. A mixture in which no amount of shaking will produce combination or solution off-hand, or no amount of filtration will clarify, will frequently become perfectly limpid when given the requisite length of time. We are informed by Messrs. Battle & Co. that Bromidia, for instance, requires six days for the thorough combination of its ingredients. We have no doubt that many other such remedies require even more time for their perfection, and no amount of skill on the part of the pharmacist can possibly make up for this element in their preparation. These facts are fully recognized in France and Germany, and we find the highest class of the medical journals of these countries full of advertisements and notices of preparations exactly analogous our proprietary remedies.—*St. Louis Med. and Surg. Jour.*

MEDICAL NOTES.

In *obstinate hiccough*, always suspect aneurism, and carefully examine for such.

Chronic peritonitis not traceable to an acute attack or to an injury, is almost invariably due to tubercle.

Dr. Musser states that, after all *operations on pelvic viscera*, it is always well to make a routine practice of giving opium by suppository.

No one remedy for *aneurism* can accomplish the good that is found to be derived from prolonged administration of iodide of potassium.

Uterine cancer, in the vast majority of cases, is of the cervix; sarcoma is of the body. One-third of all cancers found in women are of the uterus.

Dr. Bruen, at the Philadelphia Hospital, recently exhibited to the class a case of obstinate *anemia* which has been treated by Fowler's solution alone, with results most gratifying.

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Prof. Bartholow prescribed for a case of pure and simple *chorea*, gr. ⅛ of cocaine morning and evening, and, as most important adjuncts, directed particular attention to be paid to dietetic and hygienic influences.

In long administration of bromides, as in *epilepsy*, no more of the remedy can be utilized by the system in combating the disease than that which will cause anesthesia of the fauces.

For *constipation in infants*, use equal parts strained oatmeal gruel and milk. If this does not act efficiently, try from ʒ ss-ʒj of sodii phosphas in twenty-four hours.—Parvin.

For one of those cases but rarely seen, *cervical pachymeningitis*, with all its symptoms well marked, Prof. Bartholow prescribed gr. v of salicylate of cinchonidine ter die, as the probable cause was a rheumatic diathesis.

Prof. Gross has recently, with marked success, been treating *chronic ulcers* by scraping away all induration and dressing on antiseptic principles. He claims for this method a superiority over the means usually employed.

For *irritable stomach of cholera infantum*, Prof. Parvin speaks very highly of counter-irritation of epigastrium by means of mustard, and the internal administration of gr. v of bismuth with gtt. iij of of aromatic spts. ammonia every hour.

For *exophthalmic goitre*, Prof. Bartholow directed the following:

℞ Extract. ergotæ aquos. . . gr. ij.
Picrotoxin . . . . . gr. ¼₀. M.
Ft. pil.
Sig.—Twice daily.

Also gtt. xv of tincture of chloride of iron, two hours before meals.

Ipecac is also a most valuable remedy in *hæmoptysis*; its action is twofold: the hemorrhage ceases with the oncoming of nausea, and when vomiting ensues, the lungs are cleared of the blood remaining in the bronchi and their subdivisions, thus lessening the dangers of after complications or sequelæ.

To properly examine a woman's breast, she should be lying on her back. If examined in any other position, it can be so manipulated as to convert it into any tumor. When on her back, examine by pressing the tips of the fingers back through the breast against the chest walls, and not by pinching the structures up between the fingers.—Prof. Gross.

For *thread-worms*, at night give gr. j of calomel and gr. ij-iv of santonin; the following morning inject a cleansing enema of water, and follow this by the infusion of quassia. To destroy the ova hidden in the folds of the anus and adjoining parts, apply locally a one per cent. solution of carbolic acid by sponge; never use the acid as an injection, however.

Prof. Bartholow speaks quite highly of iodide of ethyl for *asthma*. It should be inhaled from a bottle, being vaporized by the heat of the hand, the patient, breathing strongly and deeply; this should be continued each sitting until a hot, stuffy sensation is experienced in the chest. At times it may cause coughing. Asthmatics should, as a rule, take a light supper, to avert the attack which is usually nocturnal.—*Col. and Clin. Rec.*

PRURITIS OF THE FEMALE GENITALS.

The following formula is recommended by Meigs for pruritus vulvæ:

℞. Boracis . . . . . ʒ iv.
Morphinæ hydrochlor. . . gr. vi.
Aquæ rosæ . . . . . ʒ viss.
M. Sig.—Bathe the parts affected.

Between the applications, lycopodium or starch flower may be dusted upon the affected parts.

Vaneedem's prescription is:

℞. Chloroform . . . . . .
Sulphuris . . . . . .
Sodii carbonatis . . . āā . ℈ iv.
Morphinæ acetatis . . . . . gr. vi.
Vaseline . . . . . ʒ v.
M. Ft. ungt. Sig.—Rub upon the parts.

Lebert's formula is as follows:

℞ Hydrargyri bichlor. . gr. viij-gr. xvi.
Spt. camphoræ . . . . f ʒ viiss.
Aquæ destill. . . . . f ʒ x.
M. S.—Bathe twice daily with the lotion.

For pruritus of the perineum, Hancke gives the following prescription, to be applied by the means of a sponge every two hours. For pruritus of vulvæ, dilute four-fold:

℞ Iodi. . . . . gr. xv.
Potass. iodidi . . . . . gr. xl.
Dissolve in aquæ dest. . . f ʒ v.
Add alcohol dil. . . . . ʒ viiss.

Pleuck's salve for pruritus pudendorum is made of the following:

℞ Ungt. hydrargyri nitratis . ʒ viiss.
Hydrargyri oxidi rub. . . gr. xx.
Adipis . . . . . ʒ iv.
M.—Ft. ungt.

Cazenave prescribes:

℞ Zinci oxidi . . . . . ʒ ss.
Camphoræ . . . . . gr. viij.
Amyli . . . . . ʒ viiss.
M.—Ft. pulvis. Sig.—Dust upon the parts.

Dr. Thomas, in cases of pruritus due to vaginal

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leucorrhea, advises vaginal injections of the biborate of sodium in solution, and once or twice a week he cleanses the cervix thoroughly of mucus, and applies the nitrate of silver occasionally; chemically pure nitric acid is used with the hope of altering the secretion. Copious injections of water are continually used, and a suppository of of cocoa-butter containing, gr. v of tannin or gallic acid, is placed against the cervix twice daily.

Trousseau recommends a solution of carbonate of potassium (ʒiii ad fʒiv) for pruritus vulvæ. A formula advised by Fox is as follows:

℞ Acetate of ammonia . . . . ʒ j.
Dilute Prussic acid . . . ʒ iss.
Infusion of tobacco . . . ʒ viij.

M. Sig.—To be sponged on the part twice a day in pruritus ani or p. vulvæ.

Bartholow recommends the following lotion:

℞ Hydrargyri chlor. corros. . 1 part.
Alum . . . . . 20 "
Starch . . . . . 100 "
Water . . . . . 2500 "

In case the pruritus comes from the presence of animal parasites, a mercurial treatment is advisable. The black or the yellow wash, or mercurial ointment may be used. The common sulphur ointment is powerful enough to kill the ordinary *Acarus scabei.*

Another formula of Thomas is very desirable as a vaginal injection and wash for the vulva:

℞ Plumbi acetatis . . . . . ʒ ij.
Acidi carbolici . . . . . ℈ ij.
Tinct. opii . . . . . f ʒ j.

M. Aquæ . . . . . O iv.

Another topical application of demonstrated value is:

℞ Bismuthi subnitratis . . . . .
Acaciæ pulv. . . . . āā . . ʒ ij.

M. Sig.—Add water to the consistency of cream, and apply frequently with a brush.

The following is also excellent:

℞ Pulv. acaciæ . . . . . ʒ ij.
Bals. Peru. . . . . f ʒ j.
Ol. Amygdalæ . . . . . f ʒ iss.
Aquæ rosæ . . . . . f ʒ j.

M.

And the following will be found an excellent lotion:

℞ Acidi carbolici . . . . . ʒij.
Glycerinæ . . . . . f ʒ j.
Aq. rosæ . . q.s. ad. . f ʒ viij.

M.—Ft. Lotio.

It must not be forgotten that diabetic urine often produces obstinate and severe pruritus, so that examination of urine is always advisable in such cases.

Hysterical or neurotic pruritus is best treated with a four per cent solution of hydrochlorate of cocaine.—*Med. and Surg. Rep.*

CANNABIS INDICA IN DIARRHEA.

Dr. S. J. Rennie, of Cawnpore, in the *Indian Medical Gazette* for December, 1886, calls attention to the value of cannabis indica in the treatment of dysentery. We wish to draw attention to its value in a similar condition, namely diarrhea; especially in the type known as summer diarrhea or English cholera. Attention has been drawn to it in this connection by Dr. Turner, of the Holloway Dispensary, in the *Lancet* (vol. ii. 1866, p. 536): he says, "In ordinary diarrhea," (referring to summer diarrhea presumably) "the formula" (mentioned in a previous part of his letter as very valuable in cholera namely

℞ Tincturæ cannabis indicæ . . ♏ x.
Spiritus chloroformi . . . . ♏ x.
Tincturæ kino . . . . . ʒ j.
Aquam menthæ piperitæ ad. . ʒ j)

"in a modified dose, will be found very serviceable. Being connected with a dispensary where thirty to forty cases of diarrhea presented themselves daily for treatment during the months of August and September, and where a great variety of remedies were tried, so great was the superiority of Indian hemp above the others, that the patients themselves got to know it, and invariably asked for the green medicine."

We have been in the habit of prescribing it in nearly all forms of diarrhea with marked benefit, combined with medium doses of morphine. In summer diarrhea the effects are very striking. There is no necessity to record cases, they are all very much alike; the great depression, the frequent watery stools, the vomiting, and the cramp-like pains are very quickly relieved, the appetite speedily returns, and by the following or third day the cases are practically well, except for some weakness and debility. The formula we generally use for an ordinary adult is:—

℞ Tincturæ cannabis indicæ ♏ x.
Liquoris morphinæ . . ♏ v vel. ♏ x.
Spiritus ammoniæ aromatici ♏ xx.
Spiritus chloroformi . . ♏ xx.
Aquam ad . . . . . ʒ j.

To be repeated every 1, 2, or 3 hours according to circumstances. Directions: *No food for several hours, but a little brandy and water.* We have not seen one case run on to a fatal issue under this treatment. It appears to act by increasing the astringent and anodyne properties of the morphine (the dose of morphine would have very little effect alone), by its stimulant effect on the nervous system, improving the tone, and by improving the appetite; thus enabling the system to quickly

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overcome the marked depression and exhaustion. Most remedies in this disease rather retard the return of the digestive functions, but from our experience Indian hemp markedly accelerates it. Indian hemp seems also to frequently counteract the bilious action of morphine, as well as the loss of appetite, and allows it to be given where it otherwise would not be tolerated.

In other forms of gastro-intestinal disturbance it is also valuable, probably for the same reasons. It was of marked use in a case of subacute gastro-enteritis, which had existed for a few weeks before it came under our care, in a girl aged 13 years, showing the following symptoms:– marked anemia, which had gradually come on after the other symptoms; constant pain over the abdomen, especially in the epigastric region, increased on pressure and after food; tongue covered with yellowish-white fur; loss of appetite; vomiting at variable times after food of partly digested material; diarrhea, six or eight stools in the day, which were watery aud green, containing partly digested food material; some rise in temperature—a little over 100° F. She was first treated with bismuth, then with effervescing mixtures, with no benefit; then with the cannabis mixture (modified to suit her age), and the symptoms very quickly subsided, the yomiting and diarrhea were checked, the pain ceased, and the appetite returned. By the end of the week all the symptoms had disappeared except the anemia, which persisted for a short time longer.

In cases of tuberculous diarrhea we have not seen much benefit, beyond a slight relief of symptoms for a short time, though we have not had sufficient experience in this type; nor in the excessive diarrhea in typhoid fever.

The use of cannabis indica in diarrhea is certainly not new, as the quotations previously given wlll show; and an old dispensing chemist informed us that some twenty years ago he knew it to be frequently prescribed; but probably from the introduction of many new remedies, and from good specimens of the drug having been not always obtainable, it has with many other valuable remedies been temporarily forgotten. We can find no mention of it in modern works on medicine.—Drs. Bond and Edwards in *The Practitioner*.

Treatment of Burns and Scalds—Prof. Mosetig, (*Cent. f. d. ges. Therap.;*) during the last five years, has treated with iodoform 48 severe cases of burns and scalds with the most satisfactory results. The danger of iodoform-intoxication in burns is merely theoretical. The patients obtain ease a few minutes after the application, and are soon fit to be moved. The patients, in Prof. Mosetig's words, repose quietly and without pain in their beds; they recover more rapidly, with only moderate and consequently less exhaustion discharges, and with smoother cicatrices, than those differently treated; and if there is no possibility of saving the life, euthanasia at least is produced. Iodoform, although inert against the dangers to life from oligocythæmia and the nervous shock, guards against the danger of sepsis. Prof. Mosetig, uses iodoform in every limited quantities only. He rarely employs the powder and when he does he sprinkles it by means of an insufflator in every thin layers, only on those places where the integument has been burnt in its whole thickness, and has assumed a parchment-like appearance. As a rule he covers the injured parts directly with compresses of iodoform gauze prepared by impregnating with an etheric solution of iodoform the purified gauze which has previously been freed of grease. He proceeds in the following manner: After opening and excising the vesicles, and cleaning the burns with cotton-wool, which has been steeped in a half per cent. solution of table salt, and well pressed out, he covers the wound with dry compresses consisting of several layers of iodoform gauze, prepared as stated apove, of corresponding size, which are exactly and smoothly laid over the whole surface of the injury. Over this an equally large or somewhat smaller piece of gutta-percha tissue is placed, taking care that it does not form folds or creases. The whole is wrapped in a very thick layer of medicated absorbent cotton-wool which overlaps to a great extent the compresses, or, better, surrounds the whole limbs or injured parts of the body. This cotton-wool is finally fixed by several turns of bandages, which at the same time exert a gentle pressure. This simple dressing is allowed to remain, without being changed, as long as possible *i. e.* as long as cleanliness permits, and no rising of the temperature takes place. The secretions from the wound drain off beneath the gutta-percha tissue, and are taken up by the absorbent cotton-wool. Slight staining of the bandage is no sufficient indication for renewing the dressing, which ought to be permanent; in cases of real imbibition and offensive smell, only the external dressing has to be removed and changed; the iodoform gauze, and the gutta-percha covering, however, should not be interfered with. In case fever should set in, which betrays by its character septic causes, generally the demarcation and separation of the mortified part having commenced, or a retention of the secretion of the wound having taken place, the dressing must be removed, the abscess opened, and free discharge of the pus secured; the mortified shreds and the eschars must be removed by means of forceps and scissors. The new dressing is put on in the same manner as the first one. The impermeable covering of gutta-percha tissue is very essential, and ought never to be omitted. The discharges may be allowed to dry in the external portion of the dressing, but never on the wound itself. Burns of the second degree, as a rule, heal under a single dressing; in

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burns of the third degree, aseptic separation of the eschar, with but slight secretion, frequently takes place, and even if the latter be not the case, the granulating surfaces heal in a far shorter time, and the cicatrization is smoother, more even, and altogether less disfiguring than in non-aseptic treatment. In burns and scalds of the face an iodoform-vaseline ointment (1-20) is employed, and covered with a mask of gutta-percha tissue. The ointment has to be daily renewed, and is spread on at the thickness of a knife-blade.—*Lon. Med. Rec.*

DUPUYTREN'S CONTRACTURE.—From the description by Langhans of the histological conditions of the cords of tissue removed in a case of finger contracture, as given by Kocher ("*Ctrlbl. f. Chir.*"), the trouble seems to consist of neoplastic or inflammatory changes, partly in the palmar aponeurosis, partly in the neighboring tissues, including the coats of the arteries and also the capillaries, about which a subendothelial granular adventitia has formed. The principal change is the great increase in number and size of the cells of the tissues affected, causing a very great crowding, with the appearance of granules, either rod-shaped or oval, for the most part regularly arranged in a longitudinal direction, separated laterally by fibers of the ground-substance. These present, after staining with borax-carmine, under the microscope the appearance of reddish stripes or bundles. Only in the middle of the most granular places is this regular arrangement interrupted. Here the granules are shorter and broader, and lie very close, in every possible relation to each other, so that the fibrous structure of the aponeurosis seems lost. When the granules lies upon the surface, they resemble vesicles. The adventitia of the arteries is very rich in granules, mostly oval. An occasional round one is seen, perhaps an oval one seen foreshortened. No migration of leucocytes was found to mark an inflammatory process. Langhans, on this account, is of the opinion that the trouble is neoplastic. Kocher maintains that the migration of leucocytes has not been excluded with certainty, and that their absence is not sufficient to prove the condition to be non-inflammatory. He considers it a chronic plastic inflammation. In either case, the evidence is indubitable that it is a disease of the palmar aponeurosis, and that a mere division of the skin or aponeurosis can not give lasting benefit, in whatever way it may be peformed. Kocher maintains that the proper operation is the complete extirpation of the aponeurosis with all its offshoots through a single integumental incision, with immediate closure of the wound with sutures. Primary union usually takes place. If this is done in the early stages, a soft, non-adherent cicatrix remains. In old cases the skin is sometimes more or less adherent; the adherent portions should be excised.

If Langhans' opinion that there is a neoplastic formation is correct, the entire extirpation of the aponeurosis is the only operation which promises any security against recurrence of the disease. *N. Y. Med. Jour.*

PATHOLOGY OF UTERINE VOMITING AND OF HYSTERICAL ATTACKS.—Dr. Graily Hewitt says that the condition of the nerve centres as well as of the uterus must be considered in this connection. Assuming that the vomiting and the hysterical attacks are reflex acts starting in an "irritation" of the uterus, it seems proper to suppose that, in a given case, there is (*a*) abnormal excitability of the nervous centre as well as (*b*) abnormal irritation of the sensory nerves of the uterus. The preponderance of either factor is compatable with the occurrence of reflex phenomena.

Factor (*a*)—For a long time I have been of the opinion that hysteria occurs particularly in conditions of malnutrition and have even concluded that the undue excitability of this disease is dependent on malnutrition of the nerve centres. The success of the Weir-Mitchel treatment of hysteria lends great support to this view. Dr. Gowers also deprecates the wide use of the term "functional disease," and says that, in a very large number of these cases, their must be more than mere derangements of function; there must be a change, and a considerable change, in the nutrition of the nerve elements. The subjects of these so-called "functional nervous diseases" are emphatically starved individuals. There is usually a history of inappetency, insufficient feeding and gradual weakening of all the vital forces as a result.

Factor (*b*)—The uterine irritation that gives rise to reflex phenomena must operate through the sensory (afferent) nerves. This may or may not be accompanied by painful sensations referred by the patient to the uterus. There is strong reason for believing that compression of the nerves of the uterus is the starting point of the reflex act. This compression may be brought about by sudden flexion of the uterus or by sudden increase of flexion of an already flexed uterus, by congestion, by small fibroids imbedded in the uterine walls, and by induration of the uterine tissues.

As to the ovaries, I have not found them notably sensitive or unusually swollen in these cases—even when prolapsed and tender they did not seem to be necessarily associated with either nausea or hysteria. Cases hitherto reported by me afford conclusive proof of the pathological views above expressed. They were treated, as a rule, with the most marked benefit on the supposition that the altered shape and position of the uterus were the cause of the uterine irritation. Those cases that most resisted the attempted im

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provement in the shape and position of the uterus were the slowest to respond to treatment. Complete restoration of the uterus to its normal shape and position is not absolutely essential—even partial restoration is often sufficient to benefit the patient materially.—*Brit. Med. Jour.*

Osmic Acid in Sciatica. — Neuher first suggested osmic acid as an antineuralgic remedy, and published the results of three cases, two of sciatic neuralgia, and one of the facial. From ten to twenty-five injections were required to effect a cure. Eulenberg obtained three radical cures and four ameliorations out of twelve cases. Many others have used it with very much the same results, *i.e.*, with benefit in some cases, and without benefit in others. Dr. Stékoulis has tried it in twelve cases (six men and four women) of idiopathic sciatica, the duration of which varied from fifteen days to two years. The result of the treatment was eight successes, one much improved, and one in which the remedy proved inert, after four injections, beyond which the patient refused to go. Its effect is explained by the well-known effect of osmic acid on certain constituents of nerve-tissue. No abscesses nor other inconvenience followed its use beyond the pain at the time of the injection. An aqueous solution, containing one per cent. of acid, is generally used, of which about sixteen minims are injected. It stains the skin and clothes black. The injection should be made *loco dolenti*, at first daily, then less frequently.—*Lond. Med. Record.*

Artificial Vagina—M. Polaillon has communicated to the *Société de Chirurgie* a case complete absence of vagina in a woman of 21, and of the successful making of an artificial one. At 15 the girl experienced pains in the genital organs at irregular intervals, and these became at last regular and monthly. The external genital organs were well developed and of normal conformation, only, there was no vaginal orifice. Palpation of the abdomen, combined with the rectal touch and the introduction of a sound into the bladder, demonstrated the existence of a uterus and a neck, while it still further confirmed the absence of a vagina. The operation was divided into two parts, separated by a few days' interval. In the first a path was incised reaching nearly to the uterus, and in the second, 23 days afterward, the uterus was reached and its opening incised. There were no accidents, no lesion of the bladder, rectum, or peritoneum. When the patient left the hospital seven months after the operation, she possessed a vagina which permitted copulation. She had not become regular, owing probably to a congenital malformation of the uterus. But the excessive pains to which, before the operation, she had been subjected monthly, were replaced simply by a menstrual malaise which was quite supportable.—*L' Union Médicale.*

Diabetes and Glycerine.—W. B. Ransom, of Trinity College, Cambridge, reports the following conclusions from experiments bearing upon this subject in the *Journal of Physiology.*

These experiments tend to show :

1. That certain forms of glycosuria may be checked by glycerine.

2. That glycerine acts more efficiently when introduced into the alimentary canal than when injected subcutaneously.

3. That glycerine checks glycosuria by inhibiting the formation of sugar in the liver.

4. That in this way glycerine may lead indirectly to an accumulation of glycogen in the liver.

Viewing the formation both of glycogen and sugar as a process of cell metabolism, quite independent of ferment action, he is unable to suppose that glycerine produces its effect by acting on a ferment in the blood, but considers it probable that it exercises some direct influence on the protoplasm of the liver cells.

Of a possible therapeutic use of glycerine in diabetes mellitus he is not now in a position to speak. The reports of clinical observers are very various, and his own observations are as yet too few to form a basis for definite conclusions.—*Med. Progress.*

The Treatmemt of Lupus by Injections of Corrosive Sublimate.—Dr. Inginio Tansini, of Lodi (*Gazetta degli Ospitali*), narrates the treatment of a case of lupus of the nose and face by means of repeated injections of corrosive sublimate. He began with a weak solution: corrosive sublimate 50 centigrammes, distilled water 100 grammes. This produced no reaction of any kind. A stronger solution—corrosive sublimate 1 gramme, distilled water 100 grammes—was then used. This produced some tumefaction and œdema in the neighborhood of the punctures, and slight suppuration in some of them. Some fourteen or fifteen injections of a few drops were practised. Improvement soon became marked, and eventually all traces of the disease disappeared, the only marks left being those of the punctures in which suppuration had taken place. Dr. Tansini was led to try these injections by the following considerations: 1. That lupus is a form of tubercle. 2. That the bacilli are few and have no tendency to diffuse themselves. 3. That corrosive sublimate has proved certainly destructive to bacilli. He claims advantages for this method on account of lessened pain and disturbance, and superior cosmetic results.—*The Lancet.*

Prof. Virchow has arranged to accompany Dr. Schlieman on his visit to Egypt next spring.

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THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

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AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, OCTOBER, 1887.

The LANCET *has the largest circulation of any Medical Journal in Canada.*

THE NINTH INTERNATIONAL MEDICAL CONGRESS.

Since our last issue, this famous gathering of the profession from all parts of the world has taken place. To say that the profession occupied Washington for the week, beginning on Monday the 5th of September, would be almost literally correct. Here, there, everywhere, on the streets, in the halls where the sections met, were to be seen legions of medical men, Great Britain, France, Russia, Austria, Germany, Italy, Switzerland, Belgium, Spain, Mexico, the Dominion of Canada, and every state and territory of the neighboring Republic, as well as countries we have not named, were represented there. Not far from 3,000 medical men had their names registered as members of the Congress. By the end of the second day, about 2,800 names were given in. Proceedings began at 11 a.m. on Monday, the 5th ult., in Albaugh's Opera House, which was crowded in every part, hundreds being unable to gain admission.

Dr. Henry Smith, Chairman of the Executive Committee, called the assemblage to order at the appointed hour, and after a few opening remarks, called upon the President of the United States to open the Congress. President Cleveland occupied only a few minutes, and after a few well chosen words, declared the Congress open for the transaction of business.

The officers of the Congress were then appointed, Dr. N. S. Davis, of Chicago, being chosen President, and the names of the several other officers as agreed upon by the Executive Committee, were read over and unanimously approved of.

The President introduced the Hon. Thomas F. Bayard, Secretary of State, who delivered a most brilliant and scholarly address of welcome, as nothing done at the Congress was more universally praised than this admirable address, the closing part of which we give in full.

"We welcome this Congress as guardians of the sanitation of the Nation. In your profession we recognize the noblest school of human usefulness, and in the progress of the department of the development of the law of cure, the mitigation of suffering, the prolongation of human existence, and the efforts to discover the true principles by which life can be made 'worth living.' We have learned to appreciate our debt to those whose highest reward is the 'still small voice' of gratitude and consciousness of benefaction to the human race. Gentlemen, I confidently promise your convention a worthy audience, not alone the members of your profession here assembled, nor the limited number whom this building can contain, but that vaster audience, to whom upon the wings of electrical force, your message will be daily borne far and wide, to the listening ears of more than sixty millions of American citizens. Sure am I that your message will be worthy, and equally that your thoughtful deliverances will be welcomed by a Continent. The closer relations of mankind, which modern invention have induced, have necessarily been accompanied by an increased dissemination of disease, and the need is obvious of frequent international conferences, that, in the grand sweep of scientific observation, new discoveries in the healing art may be promptly attested and applied in counteraction. Forgive me, if as one of the great army of patients, I humbly petition the profession that in your deliberations, Nature may be allowed a hearing when remedies are proposed; that her vis medicatrix may not be omitted in computing the forces of cure, and that science may be restricted as often as possible to sounding the alarm for Nature to hasten, as she surely will if permitted, to the defence of the point assailed. My duty is very simple, and I fear I have already overstepped its limit, for there was indeed little more for me to say than to repeat the words of an ancient whose cottage was close by the battlefield of Waterloo, and, being somewhat deaf, and hearing the sound of the artilery when the famous 'pounding' was hardest, thought she heard someone knocking at her door and simply said, 'Come in.' This may seem an unscientific illustration of auscultation and percussion, but you need not make half the noise of Wellington and Bonaparte, and I can assure you the American people will

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hear you and heartily say to you, as I do for them, 'Come in.'

This formal welcome was responded to briefly by representatives of the profession from Great Britain, France, Germany, Russia and Italy, after which, the President of the Congress delivered his opening address, at the close of which the Congress adjourned in order that the numerous sections might meet for work. And a glance at the resumé we elsewhere give, will show how much hard work of all kinds had been prepared and was energetically gone through with in the respective sections during the week.

THE STUDY OF MATERIA MEDICA.

The burdens of a medical student's college life have been increasing by leaps and bounds during the past few years, yet while new work is constantly added to their courses of study, our authorities seem very loth to relieve them of old-fashioned, useless, and obsolete matters which might be omitted. In no branch of medical study is this so apparent perhaps as in materia medica. It is the *bête noir*, not only of the medical student, but also of the young practitioner. How many men begin practice with a practical knowledge of this most important subject, we leave it to our readers to judge from their own personal experience. In perhaps no other subject is a young man so utterly befogged as in this; out of a multiplicity of half-remembered and ill-digested facts, consisting of doses, officinal and non-officinal remedies, proportions by weight and measure, new remedies, etc., he is able to satisfy himself hardly at all, when he comes to prescribe for his patient. Empiricism reigns, if not supreme, at least nearly so in his prescribing, during the early years of his practice, and indeed until he has forgotten two thirds and more of the almost useless mass of *facts* he was at so much pains and labor to master. And this empiricism in therapeutics reigns thus supreme, largely because it is *impossible* for the student to acquire all the facts required of him, and at the same time have anything like a comprehensive idea of the principles of the action of medicines. Now, students are expected to know the physiological action of drugs, which, as is well known, is a subject about which almost nothing was known till quite recently. It is undoubtedly necessary that the action should be known, if we expect rational treatment to be the rule, but while this has been added, nothing has been removed, not even the most useless and senseless requirements of the old schools. Does one lecturer on materia medica out of a two hundred, come out of his class-room after he has closed his course, prepared to pass an examination on the quantities of crude drugs, from which the various pharmaceutical preparations are made? We believe not, and we should perhaps think less of the one who could, than of each of the ninety and nine who certainly could not pass such utterly worthless examination. Yet a lecturer must repeat such work, give facts and figures, even down to fractions, when he is going over his course with his class. It would be absurd to call such repetition of facts and figures teaching or even lecturing. It is not in any sense either, and it is a great pity that such a bar should be placed in the way of true progress by those who make our medical curricula, and who should and we believe do know better, for they have themselves experienced the difficulty. These students are to become medical practitioners, and not manufacturing chemists, and it is utterly irrational to ask them to burden their memories with such matters which even the manufacturing chemist would not think of doing, but would obtain from books when required. As was well and truly said by the late Professor Sherpey, "You may as well require of a medical student a knowledge of the whole art of cutlery before you ask him to dissect."

We do not think any sensible examiner would ask for, or place much stress on such parrot-like knowledge, but occasionally one is found who thinks his only duty as examiner is to find out, not what a student does, but what he does *not* know, and who dives into the fractional proportions of various preparations, and is shocked (?) if the student cannot answer what he himself perhaps could not have answered two hours before, nor two days after. Thus while lecturer, student and examiner know that this kind of knowledge is practically useless, and while the lecturer feels the absurdity of wasting valuable time on it, and the student the hardship of getting it up, there the requirement hangs, like a sword over the devoted head of the student, who always feels that such knowledge may be required of him at

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his examination, and who is obliged to spend hours upon hours in such preparation, which might be profitably spent in acquiring a knowledge of *principles*. Doses have to be learned, and what is more, remembered, but surely here are enough *facts* for all the Gradgrinds in creation.

Some medical council that has enough *nous* to undertake the cleansing of this Augean stable, and will carry the cleansing process to completion, will have the gratitude of generations of lecturers on materia medica, and medical students yet unborn. Lauder Branton, in the preface to his grand work on Materia Medica, says: "I am so much impresed with the necessity of lessening the amount of unnecessary work sometimes required as a preparation for examinations, that at first I omitted from this book all reference to the composition of pharmaceutical preparations. But as it is intended not only as a text-book for students, but also for the use of practitioners, I afterwards considered that it might be convenient to have the composition of some pharmaceutical preparations, at least, for the purpose of reference. I have omitted the composition of such preparations as are likely to be got ready-made from a chemist, but have inserted the composition of infusions which often need to be prepared when required. I have also given the composition of various compound pills, but only for the purpose of reference."

Such a statement from such a source should surely have weight, and we believe that every thinking medical man will agree with us that it is high time medical students should be relieved of this night-mare, which has so long afflicted them.

THE DOMINION MEDICAL ASSOCIATION.

The twentieth annual meeting of this Association, held at Hamilton July 31st and Aug. 1st, was perhaps more successful than most former meetings. Ontario was well represented, but the other Provinces sent no members except Quebec, and they were, we believe, all from Montreal. It is to be regretted, that the French portion of the profession in the lower provinces does not fall into line with their English brethren, to make the meetings truly Dominion in their character. One of the reasons for holding the meeting last year at Quebec was, that it was hoped that the medical men of the East would, from propinquity, take an interested part in the proceedings. But on that occasion as at the last meeting, Ontario sent the great majority of members. Nevertheless, the number of members at this last meeting was greater than the average, and the proceedings were characterized by more than usual interest and spirit. The presence of Dr. Bantock, of London, lent additional zest, his address on Abdominal Surgery being extremely valuable.

It is proposed that at future meetings there shall be a section for Obstetrics and Gynecology, which will be, we believe, a step in the right direction. There is surely at present a craze on the subject of diseases of the female genital organs, though the wave has reached its height and is beginning to recede, yet the section will be of as much importance and value as those on medicine and surgery. The time for the transaction of the Society's business being considered too short, as indeed, all the papers could not be read and discussed, it is suggested that in future, the proceedings shall occupy three days instead of two.

The address of the President, Dr. J. E. Graham, of Toronto, was exceedingly interesting and was well received. We give the major portion of it in this issue. The papers by Drs. McPhedran, of Toronto, Eccles, of London, and Stewart, of Montreal, were especially good. Dr. Stewart gave a valuable and timely paper, for while all medical men use digitalis, and some few its congeners, few use them rationally. Digitalis is the routine for heart troubles, but how many know when not to use it, or in what doses to exhibit it.

The profession of Hamilton are to be congratulated and thanked for the efforts they made to entertain their visiting brethren. They have the satisfaction of knowing that, socially, the meeting was a great success, and that the visitors, one and all, carried away pleasant recollections of a delightful gathering and a high opinion of the geniality and hospitality of Hamilton's professional men.

The election of Dr. Ross, of Montreal, as President for the coming year, meets the approval of every one. He has for years shown the greatest interest in the welfare of the Association, and is eminently qualified for the position to which he has been elected. We apprehend that the meeting next year will be, under his presidency, a marked success.

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THE BRITISH MEDICAL ASSOCIATION.

The fifty-fifth annual meeting of this, the largest and most influential association in the world, was opened at Dublin, Aug. 2nd. The retiring president, Dr. Withers Moore, of Brighton, made a brief speech, when Dr. John T. Banks, Regius Professor of Physic in the University of Dublin, the President-elect, was conducted to the chair, and responded in an appropriate manner. The attendance was unusually large and the proceedings were characterized by their great interest, so that the meeting will long be remembered as one of the most useful and enjoyable that has ever been held. Among the addresses of especial interest and value may be mentioned those by Professor Gardner, of Glasgow, on medicine, Professor Hamilton, of Dublin, on surgery, and the historical retrospect by the President. Dr. Bastian's paper on aphasia was received with marked interest. The question of alcoholism, which is now attracting so much attention all over the civilized world, was, we are glad to learn, freely discussed, and it is to be hoped that the results of such discussion by this body, the most competent of any in the world to undertake its consideration, may be followed by results which will be felt wherever the curse is known. Professor Kocher, of Berne, read a paper on "Cachexia Strumpivira and Myxœdema," which was well received. Apostoli's plan of treatment of fibroid tumors of the uterus by electrolysis was explained to the edification of those interested in the obstetrical section, and Sir William Duncan, Dr. Stevenson and others bore witness to having proved its efficacy. Socially as well as scientifically the meeting was a great success. The committee of arrangement left nothing undone to make the visitors thoroughly enjoy their visit to the ancient and venerable city, which in itself is of great interest as having long been one of the chief seats of medical learning in Europe.

It may be interesting to our readers to know that the association numbers over 11000 members, that the total circulation of its Journal exceeds 13,000, and that financially its affairs are in a condition of the highest prosperity.

New Remedy for Night Sweats.—Dr. Pope, in a letter to the *Therapeutic Gazette*, speaks highly of *Potentilla canadensis vel* Pot. sarmentosa, as a remedy in night sweats. He says:—"I have stopped night sweats with it when atropine failed to relieve." It is pleasant to take; when drawn, it has an agreeable odor, much like table-tea. The manner of using is to pour boiling water on a handfull of the vine, leaves, and root. Let the patient drink *ad libitum*. The remedy is indigenous and may be gathered "about your own homes."

New York Polyclinic.—This admirable school of Clinical Medicine and Surgery for practitioners, was opened for its Sixth Annual Session, Sept. 19th. The class last year was 301 in numbers, probably the largest class of practitioners ever brought together in one year in any school. Two large lecture rooms have been added to the college building, and a laboratory for the study of Bacteriology has been thoroughly equipped.

Rideau and Bathurst Medical Assciation.—At the last meeting of this Society, the following officers were elected:—President, Dr. Cranston; 1st Vice, Dr. Powell; 2nd Vice, Dr. Lynch; Treasurer, Dr. Hill; Secretary, Dr. Small. The following papers were read and fully discussed:—Fracture of Neck of Scapula, Dr. Powell; Fibroid Anchylosis of Knee Joint, Dr. Grant; Hip-joint Disease, Dr. Groves; Complications of Typhoid, Dr. Chipman; Mineral Waters, Dr. Small. The next meeting will be held at Ottawa, in January.

College of Physicians and Surgeons, Province of Quebec.—Officers for 1887-89: Wm. H. Hingston, M.D., President; Dr. J. L. Leprohon and Hon. Dr. Ross, Vice-Presidents; Dr. Leonidas La Rue (Quebec), Registrar; Dr. E. P. Lachapelle, Montreal, Treasurer; Dr. F. W. Campbell, Montreal, and A. G. Belleau, Quebec, Secretaries.

Hemorrhoids.—Dr. Shuford writes to the *Med. Register*, giving the following as his method of treating hemorrhoids, with which method he has had much success:—The bowels should be well cleansed with a saline cathartic. Anoint the rectum, and with a proper speculum examine the tumors. Have ready the following preparation:

℞—Glycerole of borax or boric acid, ℥ iv.
Glycerole of salicylic acid, . . ʒ iv.
Carbolic acid (pure), ... ʒ iij.—M.

Rub thoroughly together in a mortar and let

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stand until the mixture clears. Inject from 3 to 5 drops of this fluid in small, and from 5 to 8 in large tumors, as near the centre as possible, as that is the least sensitive part. The remedy injected into the tumors will diffuse itself, producing atrophy, a shrinking up and peeling off, about the fourth or fifth day after the operation, which is repeated after the eighth or tenth day, the new membranes being allowed sufficient time to toughen. This treatment is not painful and calls for no anesthetic. The patient may go about at will without added inconvenience. When the operation is well performed, in connection with other treatment indicated, it is quite as safe and effectual as the knife, ligature, clamp, or craseur. It is, moreover, attended by no pain or loss of time.

A NEBRASKA DOCTOR'S CERTIFICATE.—The following certificate, of which we hold the original, was written by a Nebraska doctor, who is famous for his cheek and cunning, and enjoys a large practice in his place, being known for a hundred miles around. The orthography is his own, also the new medical terms:

"—— ——, Sept. —.

"This is to certify, that Mrs. —— did not die with Bright's disease of the kidneys, but of a Volular Alisais of the Heart, also a gastric condition of the stomach, and Phneumonic Thyphoid, attended with a malarial base."

That is the kind of man who has a licence to practise in Nebraska, and yet the Chicago *Inter-Ocean* thinks we should have free trade between the United States and Canada in the matter of doctors.

THE *American Med. Jour.* is responsible for the following:—"At the American Institute of Homeopathy, held at Saratoga Springs June last, Dr. Jno. E. James, of Philadelphia, while discussing the therapeutics of hip-disease, said: '*Rhus.* acts best on the *right* hip, and *stram.* has remarkable control over the disease in the *left.*" Dr. J. C. Morgan, from the same city, also said: '*Stram.* has proved exceedingly useful in very many cases of disease of the *left* hip.' These remarks remind us of a recent law we have seen for the determination of the sexes, deduced after the compilation and careful examination of a vast quantity of statistics: 'If the mother, while pregnant, sees a bow-legged flea with a wart on its *left* knee, the child will be a male. If the wart is on the *right* knee, a female. In case the flea is cross-eyed and lacks its eye-teeth, these indications are reversed.'" The same authority says that bitch's milk (*lac caninum*) is a new homeopathic remedy.

TREATMENT OF HEPATIC CONGESTION.—Jules Cyr gives (*Rev. de Thérap.*) the following rules for treatment of the above:—1. Application over the liver of compresses of cold water, often renewed; two or three leeches about the anus. 2. At evening, $\frac{3}{4}$ of a grain of calomel should be taken, followed the next morning by five drachms of Glauber's salts. 3. As beverage, milk and Vichy water, or 75 grains of ammonium chloride in a quart of water. A douche, while the patient is reclining, of water at a pleasant temperature, given over the hepatic region.

NUTRITIVE ENEMA.—Ewald gives (*Deutsche Med. Zeit.*), the following: Take two or three eggs and beat them up smoothly with a tablespoonful of cold water; next heat a half cup of a twenty per cent. solution of glucose with a pinch of starch, and add a wineglassful of red wine; then pour the solution of egg in slowly, taking care that the solution does not become warm enough to coagulate the albumen. Before injecting this enema, the lower bowel must be emptied by clysters.

THERE has been a dearth of jubilee honors, so far as the medical profession is concerned. Much dissatisfaction is said to be the result, not on account of the honors conferred, but because many worthy members of the profession have been ignored. Three medical men only have been informed that the Queen has been pleased to confer the honor of knighthood upon them, viz., Dr. Garrod; Dr. Aitkin, Professor of Pathology at the Army Medical School, Netley; and Mr. G. H. Macleod, Regius Professor of Surgery at Glasgow University, and Surgeon in Ordinary to Her Majesty in Scotland.

ORDINANCE CONCERNING HOMŒOPATHIC PREPARATIONS.—The *Union Médicale* states (says the *N. Y. Med. Jour.*) that a recent ministerial decree at Vienna restricts the right to dispense homœopathic preparations to those homœopathic practitioners who really observe the methods of dilutions laid down by the homœopathic school. The object of

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the ordinance is to put a stop to the abuse by which, under the guise of the homœopathic preparations, all sorts of remedies have been given to patients by certain physicians.

Treatment of Piles by Dilatation.—M. Verneuil (*Gaz. des. Hôp.*) says, that during a practice of fifteen years, he has not failed to cure piles of 6, 8, 10, 12 and 14 years duration by dilatation. The writer prefers the speculum as a means of dilatation rather than the digital method. Treatment need rarely exceed eight days in duration, four of which are to be passed by the patient in bed, and four in his room.

For Diarrhœa.—The following is recommended (*Med. Summary*) for that form of diarrhœa characterized by frequent, painless, watery discharges:

℞—Tinct. opii deod., ... ♏ xx.
Tinct. nuc. vom., ... ʒ ss.
Ext. hammamelid., . . . ℥ j.—M.
Sig.—ʒ ss. in water, every 3 hours.

Ointment for Seborrhœa. — The *Med. Summary* gives the following (Bronson's ointment) for seborrhœa :—

℞—Hydrarg. ammon., ... gr. xl.
Hydrarg. chlor. mit., . . . gr. lxxx.
Vaseline, ... ℥ j.—M.

A Point in the Treatment of Chorea.—Dr. Flood (*Chicago Med. Times*) says he has very often found tenderness over the fifth cervical vertebra in choreic cases. He treats this locally by applying ether spray over the tender spot, and follows this by mild counter-irritation, this he follows by tonics and ergot.

Medical School Openings. — The inaugural address at the opening of the Session of 1887-8 at Toronto University will be given by Professor Ramsay Wright, Oct. 3rd, at 4 p.m.; that of the Woman's Medical College, Toronto, by Dr. McPhedran, Oct. 1st, at 3 p.m., and that of Trimity Medical Faculty by Dr. J. L. Davison, Oct. 3rd, at 4 p.m.

The faculties of Trinity and Toronto Medical Schools have completed a scheme by which the clinical instruction at the Toronto General Hospital will be considerably increased, each school taking an equal share in the work. This is certainly a step in the right direction.

Patellar Reflex in Typhoid.—Dr. Hughlings Jackson says he has never known the knee jerk to be absent in enteric fever, while he has found it wanting in meningitis. This may prove a valuable diagnostic sign.

Training School for Male Nurses.—Dr. D. O. Mills is about to have erected a building costing $10,000, to be used as a training school for male nurses. It will be situated on the grounds of Bellevue Hospital.

"English as she is Spoke."—It is said of Mrs. Partington, that, while gazing admiringly on St. Paul's Cathedral, in London, she expressed her emotion as follows: "O! venereal pile; gigantic stricture."

Antipyrin in Locomotor Ataxy.—It is said (*Br. Med. Jour.*) that some observers have found antipyrin of great value in the pains of locomotor ataxy. It should be given in ten grain doses in water, when the pains come on, and discontinued as soon as they abate.

Salol in Sciatica.—Dr. Aschenbach (*Med. Rec.*), has had a personal experience of the value of the above drug in sciatica. He took seven grains in the evening and fifteen grains more at midnight, with the result that he slept soundly all night and awoke perfectly free from his malady.

Mr. Savory, president of the Royal College of Surgeons, and senior surgeon to St. Bart's, has declined the knighthood recently offered him by the Queen. It is said, he was of opinion there should have been a baronetcy attached

Sweating Feet.—Mr. Richardson writes (*Brit. Med. Jour.*), that he has cured a case of the above disease by the application of soda. He says it may be used either as a fine powder or in concentrated solution, once daily.

Provincial Appointments.—Dr. C. J. Hamilton, of Cornwall, to be an associate Coroner for the United Counties of Stormont, Dundas and Glengarry. Dr. T. D. Galligan, of Renfrew, to be an associate Coroner for Renfrew.

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REMEDY FOR ASTHMA.—Dr. Woodward gives (*Br. Med. Jour.*) the following as a very excellent remedy for the paroxysms of asthma and hay fever:

℞.—Daturæ tabulæ,
Stramonii,
Can. indicæ,
Lobel. inflat., ... āā ʒij.

Mix with pot. nit. pulv. ʒij and ol. eucalypti ʒss.

Burn a teaspoonful in bedroom, and repeat if necessary. The writer says the patient should at the same time observe the ordinary rules, such as going to bed on an empty stomach, keeping the feet warm, etc., without which, few remedies will be of any use.

CINCHONIDIN IN INTERMITTENT FEVER.—From extended experiments on the action of cinchonidin in intermittent fever, Dr. Legenis has come (*Archives Génér. de Méd.*) to the following conclusions: —(1) The salts of cinchonidin are as efficacious as those of quinine; (2) they may be employed in all cases in which the latter are generally used; (3) the sulphate of cinchonidin is well tolerated by the stomach in nervous persons or in those intolerant of quinine, and it does not produce either ringing in the ears, nervous agitation, or tremors; (4) they cost about half the price of quinine and its salts.

OINTMENT FOR SCABIES.—

℞.—Napthali, ... pts. 15.
Saponis virid, ... pts. 50.
Adipis, ... pts. 100.
Pulv. cretæ, ... pts. 10—M.

One application of the above is said to be effectual. No bath is required previously, and the skin is left in a good condition.

FOR CRAVING FOR ALCOHOL.—

℞.—Spts. ammon. aromat., . . . ♏ xxx.
Tinct. capsici, ... ♏ v–x.
Inf. gentianæ, ... ʒij—M.
S.—Statim.

THE BINIODIDE OF MANGANESE is recommended by Bartholow, instead of the permanganate, for amenorrhœa, as it does not so often disagree with the stomach. It should be given in two-grain pills, three times a day, and continued indefinitely.

PROTECTION FROM FLIES.—The *National Druggist* says, horses or milch cows may be protected from the stings of these pests, by washing them over with soap-suds in which a little carbolic acid has been mixed.

BERLIN is excited over the announcement that Professor Virchow has been rejected as candidate for the position of Post Rector of Berlin University. His political opinions are said to be the cause.

COCAINE IN CHOLERA INFANTUM.—Dr. Herr (*Therap. Gaz.*) has employed the above remedy in cholera infantum, in doses of $\frac{1}{6}$ grain every two hours, with the happiest results.

SOME one has said that a tooth, immersed in a solution of tincture of iron and water, one in eight, has its whole enamel destroyed in an hour. May be so.

FOR STYES.—A three per cent. solution of boracic acid, applied several times a day to styes, is said not only to cure them, but also to prevent a return.

EPISTAXIS.—M. Verneuil says (*Lancet*) that cer ain forms of epistaxis are to be successfully treated by counter-irritation over the region of the liver.

PROFESSOR GRAINGER STEWART states, that one-third of the samples of urine from four hundred and seventy healthy people, contained albumen.

M. PASTEUR is said to have expressed profound satisfaction witn the report of the British Committee of Investigation on his work.

A QUACK recommends smoking for the treatment of sciatica, because it is a well-known fact that smoke will cure hams.

PRURITUS ANI.—Linseed oil is said to give immediate relief in pruritus ani, when there are no rectal complications.

ONE hundred and sixty-five people died in Chicago, July 15th, 16th and 17th, from the effects of heat.

THE latest suggestion for the cure of *mal de mer*, is counter-irritation over the mastoid processes.

PEDICULI PUBIS.—One application of ether is said to be sufficient to destroy the pest.

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Books and Pamphlets.

A System of Gynecology. By American authors. Edited by Matthew D. Mann, A.M., M.D., Prof. of Obstetrics and Gynecology in the Medical Department of the University of Buffalo, N.Y. Vol. I. Illustrated with 3 Colored Plates and 201 Engravings on Wood. 8vo.; pp. 789. Leather. Philadelphia: Lea Bros. & Co. Toronto: Hart & Co.

This first volume of the American System of Gynecology is an excellent work. Its appearance is equal to the best efforts of American publishers, and its contents are quite as good as its appearance. We need only mention the subjects treated of in this first volume, with the authors of the various articles, to convince our readers that the work is perhaps the best which has yet been produced on this subject. They are as follows:—"Historical Sketch of American Gynecology," by Edward W. Jenks, M.D.; "The Development of the Female Genitals," by Henry J. Garrigues, M.D.; "The Anatomy of the Female Pelvic Organs," by Henry C. Coe, M.D.; "Malformations of the Female Genitals," by Henry J. Garrigues, M.D.; "Gynecological Diagnosis," by Egbert H. Grandon, M.D.; "General Consideration of Gynecological Surgery," by E. C. Dudley, M.D.; "General Therapeutics," by Alexander J. C. Skene, M.D.; "Electricity in Gynecology," by Alphonso D. Rockwell, M.D.; "Menstruation and its Disorders," by W. Gill Wylie, M.D.; "Sterility," by A. Reeves Jackson, M.D.; "Diseases of the Vulva," by Matthew D. Mann, M.D.; "The Inflammatory Affections of the Uterus," by C. D. Palmer, M.D,; "Subinvolution of the Vagina and Uterus," by Thaddeus A. Reamy, M.D.; "Peri-Uterine Inflammation," by Richard B. Maury, M.D.; and "Pelvic Hematocele and Hematomata," by Ely Van de Warker, M.D. The above subjects are treated in a lucid, practical, and concise manner; treatment receiving a due share of prominence, a matter which will be appreciated by all practising physicians; for in some of our best works on medicine and surgery, this important part of the work is often neglected for the more scientific (?) aspects presented in diagnosis, pathology, etc.

A Companion to the U. S. Pharmacopeia; being a Commentary on the Latest Edition of the Pharmacopoia. By Oscar Oldberg, Ph. D., Prof. of Pharmacy, Illinois College of Pharmacy, etc.; and Otto A. Wall, M.D., Ph. G., Prof. of Materia Medica and Therapeutics, Missouri Medical College, etc. 2nd edition. 650 illustrations; pp. 1215. New York: W. Wood & Co. Toronto: Hart & Co.

This work is designed as a ready reference book for pharmacists, physicians and students. The botanical description of plants, the physiological action of remedies are omitted as not being of daily use to physicians and pharmacists, while the practical facts and suggestions are so arranged as to be found at a glance. The "parts by weight" of the new pharmacopœia into definite quantities by weight and measure; the medicinal properties and uses of all the medicines of which it treats, are given concisely, with doses, etc. The information given regarding hypodermic injections, inhalations, baths, etc., will be found useful. The book as a whole shows careful work on the part of the authors and will, we are sure, be useful to the profession generally, and especially so to pharmacists.

The Treatment of Neuralgia by Means of Intense Cold.—George W. Jacoby, M.D., says that we possess two refrigerants, chloride of methyl and the fluid carbonic acid, which can be easily and practically utilized in the treatment of neuralgia.

Births, Marriages and Deaths.

At Edmonton, N.W.T., on August 4th, the wife of Dr. H. C. Wilson, member North West Council, of a son.

On the 24th of August, Reginald Belt, Esq., M.D., to Emma, eldest daughter of George Hyland, Esq., both of Oshawa.

On the 14th of Sept., R. W. Garrett, M.D., of Kingston, to Minnie Louisa, only daughter of the late Alexander S. Kirkpatrick, of Kingston.

On the 14th Sept., W. O. Taylor, M.D., Princeton, Ont., to Jessie, daughter of the late Mark Tooze.

In Manitoba, August 1st, Robert Thibodo, M.D.

At Brunswick, Georgia, on the 22nd August, John Aldham Wilson, M. D., late of Kingston, Ont.

At Canon City, Colo., August 28th, 1887, Dr. Francis Nelson, formerly of Montreal.

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THE CANADA LANCET.

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Original Communications.

THE BEHAVIOUR OF THE FLUID IN, AND THE PATHOLOGY AND TREATMENT OF EMPYEMA.*

BY A. M'PHEDRAN, M.D., TORONTO.

In all cases of empyema many points present themselves for decision, on which, any one who is responsible for their management, would be glad of the opinion of a meeting such as this. The difficulties in diagnosis are much greater in the child than in the adult, but even the latter often present difficulties sufficient to baffle any but the most experienced. The signs and symptoms do not maintain the uniformity which the descriptions in the text-books, especially the older ones, would lead us to suppose, and reliance on which has doubtless caused most of us much chagrin at some time in our professional experience. I well remember the case of a man of middle age admitted to the Toronto General Hospital when I was a student there, who was suffering from moderate cough, dyspnea and considerable febrile movement. The percussion note over the left half of the chest was universally flat, but bronchial breathing and bronchophony were distinct all over it. He had led a dissipated life; he was too ill to give us a history. The condition was supposed to be pneumonic consolidation. He came to the marble slab a day or two afterwards, and we found we had grievously blundered, not an unusual discovery to make at post-mortem examinations. The left pleura was distended with pus to its utmost capacity.

In children, many cases, no doubt, go through all the stages to recovery or death without there being any suspicion as to the true nature of their ailment, and that, too, in the hands of the most capable practitioners.

*Read before the Dom. Med. Assoc. at Hamilton, Aug. '87

Probably more than half of all cases of empyema occur in the first decade. Owing to the great resiliency of the lung in this period, small effusions cause no distension of the chest. As the effusion is poured out, the lung contracts on account of its own retractile energy, making room for the effused fluid, which thus exercises no compression on the lung; the result is exactly the same—so far as the lung is concerned—as that which would occur if an equal quantity of air were admitted. When the effusion has been considerable, expansion occurs; but owing to the great yieldingness of the chest-walls, the expansion is uniform, without bulging of the intercostal spaces and with seldom much, if any, displacement of the heart or depression of the diaphragm. Then it is all-important to remember that bronchial breathing and voice sounds persist in almost all cases in children; few of the standard works note this. Nor do the anomalies stop here. Goodhart says, "It is common enough that one draws fluid from such part of the chest as is apparently filled with air in inspiration and gives clear resonance in percussion."[1] Until recently the authorities taught that the effusion, when not circumscribed by adhesions, changed its position with the altered position of the patient, the upper margin of the region of dulness always maintaining a horizontal disposition or nearly so. Da Costa says, "When the patient lies on his face, the fluid gravitates towards the anterior chest-walls and percussion dulness posteriorly becomes far less perceptible."[2] Recent investigation, especially by Garland, Douglas Powell and others, proves that moderate effusions are immovable, maintaining their fixed position irrespective of the position the patient may assume. Gravity has no influence on them as it has on fluids in open vessels. And owing to the same causes, the upper margin of the fluid does not maintain a horizontal or water-level line, but is drawn up into a curved line, having its highest point in the axillary region. These are some of the reasons that render the diagnosis of fluid in the pleural cavity, especially in children, difficult.

The causes which occasion the accumulation of pus in the pleural cavity are far from being well understood. With many writers the opinion obtains that it is an alteration, accidental or other-

1. Brit. Med. Jour., 1887, vol I, p. 1203. 2. Physical Diagnosis, p. 318.

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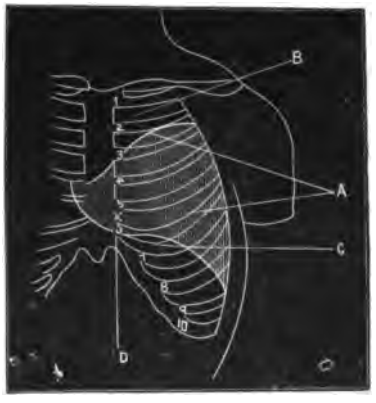
wise, of a fibrino-serous effusion. Fraëntzel affirms, "In almost every case the effusion is at first fibrino-serous, and it is during the subsequent course that it becomes, sooner or later, purulent, and this may occur as early as the first week."[3] Reynold's System, Pepper's System and Quain's Dictionary of Medicine teach similar views. On the contrary, that empyema is a suppurative inflammation from the beginning and not an altered simple pleurisy, is held by many, among whom are Wilson Fox, Austin Flint and Douglas Powell. The latter says, "Unquestionably serum is more easily effused than pus, and purulent effusions are at first thin and diluted, but the pus element is from the first largely present and active in acute empyema."[4] In this early stage, while the effusion is



(From "Diseases of the Lungs and Pleuræ," by R. Douglas Powell, M.D., Lond.)

Percussion signs in case of moderate effusion. *A*, area of complete dullness ("flatness"); *B*, area of tympanitic (Skodaic) resonance; *C*, inferior curved line of tympanitic (stomach) resonance.

thin and serous, no means that we can adopt will prevent it from becoming purulent. That a fibrino-serous pleurisy may become suppurative, we know only too well, from this untoward event occurring sometimes after operative measures; but without such operative interference, it is seldom such spontaneous alteration in the character of the disease occurs. Excluding cases that arise from such obvious causes as penetrating wounds of the chest, fracture and caries of ribs, pulmonary gangrene, rupture of tubercular cavities into the pleura, phlegmonous abscesses in the walls of the chest, etc., what are the conditions then that determine a suppurative rather than a simple pleurisy in any given case? The authorities, when they refer to this subject at all, usually assign such causes as "depressed condition of system," "morbid constitutional states," "intensity of reaction," and the like; and we have been usually content to accept unquestioningly such obscure phrases as satisfactory pathological statements. In a recent address, Goodhart, in accounting for the greater frequency of empyema in children than in adults, says, "surely one cannot be far wrong in attributing it to the intensity of reaction in growing tissues to inflammatory irritation, to the rapidity with which cells grow, and to the greater sensitiveness in young life to sudden changes to their environment."[5] This expresses a very prevalent opinion as to the causation of suppurations in general and of empyema in particular. According to this opinion the causes of both kinds of pleurisy may be the same, the difference in the character of effusion being due simply to a difference in constitution. If this theory were correct, then all simple pleurisies would become purulent, were the inflammatory reaction only sufficiently acute and the constitution depressed. But it is well known that even the most severe simple pleurisies do not become spontaneously purulent, and we never expect them to; in fact, while simple pleurisy is fairly common after thirty years of age, and often characterized by the most severe constitutional disturbance, in subjects of low vitality, yet acute empyema is fortunately rarely met with at this period of life. Again, among young persons it is not exceptional to meet with cases of empyema with only moderate reaction, while in others, perhaps less robust, simple pleurisy has been attended with severe constitutional symptoms. It will thus be seen that the difference in the causation of the two varieties of pleurisy cannot be simply one of degree, but must be a difference in kind. Few English or American writers throw any light on this subject; Bristowe, Roberts, Anstie, Loomis and J. Lewis Smith make no reference to it. Donaldson says nothing more than "that there are cases in which neither local nor general conditions explain the transformation of serous into

3. Ziemssen's Cyclopedia, p. 611. 4. Diseases of Lungs and Pleura, p. 66.

5. Brit. Med. Jour., 1887, vol. I, p 1203.

*The Address on Medicine at the Canadian Medical Association at Hamilton, August 31st, 1887.

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purulent effusion in the chest."[6] Flint goes further and is of opinion that all cases of empyema are due to a special cause as yet unknown. Douglas Powell is more explicit; he thinks, "we may, indeed, with some plausibility, maintain that some septic agent present in the blood renders the inflammation purulent rather than serous, as in the joint affections in pyemia, although the pus-producing quality in the blood is very difficult to estimate and would seem to be of different sorts."[7]

If we turn to German writers, we find much more definite statements as to the pathology of empyema, and it is a matter for surprise to find our radical American friends, who are usually inclined to follow the lead of German pathologists, in company with, or rather behind, the conservative Englishman, who is rather slow to accept any new theory. In Ziemssen's Cyclopedia, Fraëntzel, to account for the enormous production of pus cells in many cases of empyema, which far exceed in number all the white corpuscles of the blood, suggested that a rapid process of cell division took place in the migrated white corpuscles, and that this cell division was due to some cause hitherto undiscovered. Since then the germ theory of disease has seen almost its whole development, and its widest application is received with little reservation by the German profession generally. Rindfleisch asserts that micrococci are present in all suppurations. They are found in the pus of all acute abscesses, and, with few exceptions, in the pus of all cases of empyema. Strumpel's Text Book of Medicine, the latest work we have from the German, gives it as an undoubted fact that purulent pleurisy can only be excited by infection of the pleura with a specific virus, and his teaching is widely accepted in Germany. Eichhorst says, "It is probable also that the bacteria to which such acute diseases, as typhoid fever, scarlet fever, acute ulcerative endocarditis, puerperal fever, etc., owe their origin, exert a direct inflammatory irritation on the pleura to which they are carried by the lymphatics."[8] We know that if we keep all micro-organisms out of external wounds by appropriate dressings they do not suppurate, even if the system of the patient is depressed. If all other agencies than germs are insufficient for the development of the suppurative process in wounds, will they not also be insufficient for the development of a similar process in the pleural cavity? This leads to the discussion of the pathology of suppuration generally, which is beyond our province.

In the treatment of empyema, medicine has little to offer towards aiding us in the management of this disease; but, the development of aseptic surgery has done very much in lowering the mortality rate, and not only so, but also in effecting such cures as are satisfactory alike to patient and surgeon. Instead of "generally proving fatal," as Trousseau mournfully remarks of this disease in his time, the results, in the experience of doubtless not a few present, have been uniformly favorable as to life, and fairly so, as to the completeness of the cure. In the past, as now, in a few cases the pus was absorbed, leaving no evil effects; in some others, in whom the pus found its way into a bronchus, and a smaller proportion still of those in whom it found exit by perforation of the chest-wall, recovery ensued; nearly all others died, operative interference being almost necessarily fatal and therefore scarcely justifiable. In our day the conditions are reversed; it is in the *retention* of pus in the body, not in its *evacuation*, that dwells the danger; so that on the discovery of pus in the pleural cavity, our imperative duty, with rare exceptions, is to remove it. If the effusion be large the removal must be prompt, irrespective of the condition of the patient, since large effusions—even in patients apparently suffering but little from them—are liable to a sudden fatal termination.

In what cases is it advisable to delay interference? The most common are those in whom perforation of a bronchus has occurred and the pus is being expectorated; some of these recover in fair time without operative aid. Godlee, of Brompton Hospital, specifies the following also:[9]—1st. Cases of chronic phthisis in whom the presence of pus may apparently be doing no harm for a considerable time, but its evacuation may be followed, apparently as a result, by increased destructive changes in the lungs. 2nd. In a class of tubercular cases, where the empyema is in direct communication with a bronchus and the patient suffering

6. Pepper's System of Medicine. 7. Ibid.
8. Diseases of Lungs, etc.

9. Lancet, 1886, vol. I, p. 95.

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but little inconvenience. In all other cases active measures are necessary, and two methods present themselves for our consideration, viz., aspiration and free incision. In what kind of cases is aspiration to be recommended as a rational means of cure? There is no doubt that a certain proportion of cases recover after one or more aspirations, but these successes are confined to children only; these cases, it is well to bear in mind, would be also the most favorable subjects for free incision. Even in children, aspiration seldom succeeds, except when the effusion is localized. Of 120 cases of empyema in children, collated by Dr. Holt, of New York,[10] only 21 were cured by aspiration, and in all but one of these the effusion was localized. These would probably have recovered even more rapidly by free incision, so that all they gained was the escape from the inconvenience of an open wound and the applications of dressings. Aspiration should therefore be confined to those cases in which the pus is slowly effused or localized; the process may be repeated if, after the first aspiration, the pus re-accumulates slowly, is more serous, and quite inodorous; a second aspiration should be done before much fluid accumulates to injure by distension any adhesions that may have taken place. If the results of aspiration are not satisfactory, free incision should be promptly resorted to, because of the liability of the lung to become permanently contracted by formation of adhesions and cicatricial thickening of the sub-pleural tissue. Many do preliminary aspiration in all cases, even if they have little hope of any good being done. This is unwise, not only because there is loss of time and increased liability of permanent contraction of lung, but also because, as Dr. Clifford Allbutt first pointed out, hectic fever often develops after aspiration. In all adults, and in the majority of children, the aspirator is of use only as an instrument of diagnosis, not of treatment.

In using the aspirator, the greatest care should be taken that all is done with strictest antiseptic precautions. The part to be punctured, the operator's hands, and the aspirator should be thoroughly cleansed and rendered aseptic. Before introducing the needle, it and the attached tube should be filled with antiseptic fluid, in order to pervent the possibility of the entrance of air containing any septic particles.

10. Med. News, June 4th, 1887.

Having determined that free drainage is necessary, where should the incision be made? what anesthetic used? what antiseptic precautions are to be taken? what is the best method of drainage? Is the pleural cavity to be washed out in any, or all cases? In what cases is excision of ribs necessary, or advisable? What additional means are to be adopted in chronic cases? These are all questions deserving of our most careful consideration. My time will allow me to touch briefly on only a few of them.

Some, with Marshall, advise that the opening be made well forward, near the sternum, in the 4th or 5th interspace, the usual seat of spontaneous perforation, on account of the thinness of the chest-wall here—there being but little muscular covering. Some, again, believing that drainage is best attained by making the opening as low as as possible, as tapping a barrel low down best empties it, make the incision well down below the angle of the scapula. The majority of writers, however, recommend about the 7th or 8th interspace, near the posterior fold of the axilla, as on the whole giving the best results. This point affords ample facilities for drainage in recent cases, and is not liable to be occluded by the upward and outward pressure of the diaphragm. Just how, so high an opening drains the lower part of the pleural cavity is difficult to explain, but it is no doubt due to the elasticity of the lung and chest, and the upward pressure of the diaphragm. In making the opening, the liability of puncturing the diaphragm is a possible accident always to be borne in mind. It has occurred in several reported cases, in one of which the incision was made in the 6th interspace.[11] The accident is owing to the diaphragm being elevated and adherent to the chest-wall, instead of being depressed as usual. It is therefore advisable always to explore with the aspirator, to satisfy ourselves of the existence of pus, before making an opening; at the same time remembering that the needle may give negative results, on account of the thick consistency of the pus, or the occlusion of the needle by fibrinous deposit.

What anesthetic are we to use? Chloroform is safer than ether in this disease, both are probably more dangerous than in most other diseases. For the adult, general anesthesia is seldom required,

11. New York Med. Record, 30th Sept., 1886.

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the local injection of cocaine, or the use of the ether spray being sufficient. In children, chloroform is fairly safe in uncomplicated cases, and I think its administration is to be advised in almost all cases, even for aspiration; for the terror excited in children by any of these operative procedures is probably nearly as dangerous as chloroform anesthesia and certainly much more disagreeable.

What is the best method of drainage? On this opinions differ, but the majority favor a rubber tube one-quarter or one-half inch in diameter, and only sufficiently long to enter the pleural cavity. If the interspace is not wide enough to admit it easily, a portion of rib had better be excised to allow the free insertion of the tube at times of dressing; in this way the dressings are much less painful and the drainage much more perfect. Many practitioners prefer drainage by syphonage to the open free drain, and they have had the most gratifying results by that method. I am not prepared to offer an opinion on the relative merits of the two methods, as I have had no experience with the syphon; but many who formerly advocated and used it exclusively, have now discarded it for the open drain, with strict antiseptic measures. It is very important that the tube be removed as early as possible, as its presence is sufficient to prolong the discharge. In few children is it necessary to retain it longer than about two weeks, in some a few days suffice; in adults it must be retained until the discharge is almost completely dried up. If the tube be removed too early, the temperature will soon indicate the necessity for its re-introduction.

Shall we wash out the pleural cavity? There is room for dispute here. Writers with few exceptions answer this in the affirmative, though most of them admit that the proceeding is not devoid of gravest danger. In the treatment of purulent collections in any part of the body, the first requirement is to give free vent to the pus and prevent the retention of any part of it. To do less is repugnant to true surgical instincts. If this is done and suitable antiseptic dressings applied, nothing further will be required in any acute suppurative process. Any meddling with the cavity can do no good, but will probably do harm by interfering with the union of opposing surfaces or the organization of granulations.

Empyema is but a pleural abscess, peculiar in having a more or less rigid outer wall, a yielding elastic inner one and close relations with vital organs that are very susceptible to impressions. In the treatment of empyema if we secure perfect drainage and complete antisepsis, we have fulfilled our duty and a cure will soon result. If we fail in these objects the results will be imperfect, and the usual course is to endeavor to make up for the deficiency by the use of antiseptic washes to remove residual pus and correct or mitigate its septic properties. While collections of pus in the liver, large joints, the peritoneum, or even the brain, may be washed out almost with impunity, similar treatment of pleural collections is attended with grave dangers, and death is liable to result unexpectedly during or after the operation. The death roll from this cause is a large one. In all the fatal cases reported, the unpleasant symptoms have occurred only after repeated washings, always during the entrance of the fluid, but never during the first washing. The most frequent cause of these sudden deaths is probably syncope, due to the suddenly increased pressure or reflex disturbance.[12] Sudden withdrawal of large pleural effusions may have a similar effect by lessening pressure and allowing rapid dilatation of the auricles. In some cases the injected fluid causes occlusion, by its pressure, partial or complete, of the vena cava inferior; such a case occurred to Fraëntzel. Another cause of sudden death is cerebral embolism, from clots loosened in the veins of the lungs, by increased pressure. Some substances as sodium salts, nitric acid, chlorine, are poisonous to the heart and should not be used under any circumstances. Fluids used too hot or too cold may have equally disastrous effects. In view of these dangers, it is quite evident that washing out the pleural cavity should not be done as a mere matter of routine, a practice which, were it even not dangerous, is wholly unnecessary. We should not resort to it, when it is feasible to pursue the more rational method of enlarging the opening in the chest, by resection of ribs, for the purpose of free drainage and removal of fibrinous deposits with curette or other suitable means. It is in the highest degree reprehensible, under any circumstances, to distend the cavity with a view of ascertaining its capacity. Lastly, if washing out the cavity is necessary, it should not be entrusted to an unqualified assistant. Instead of washing out the cavity, some have tried the insufflation of disinfectant powders, especially iodoform, with fairly satisfactory results.

12. Medical Chronicle, Aug., 1887.

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ADDRESS ON OBSTETRICS BEFORE THE CANADIAN MEDICAL ASSOCIATION.

BY F. R ECCLES, M.D., LONDON, ONT.

Animated by a desire to promote the interest of this Association, and feeling the obligation which rested on me as a member thereof, I consented to open the discussion in the department of obstetrics and gynecology. Soon thereafter I recognized the responsible position in which I had placed myself, and began to sorely repent my rashness. But the consciousness of the liberal-mindedness of the members of the Canadian Medical Association assured me that in an honest endeavor to discharge a self-imposed duty, I need not look in vain for their kind indulgence.

I was anxious to present to this Association some subject in connection with this department which would not only be interesting to the specialist, but to the general practitioner as well, as the general practitioner largely prevails in this young country of ours. I have therefore selected so commonplace a subject as *Subinvolution of the Uterus*, not more on account of the frequency of its recurrence and the not unfrequently more or less unsatisfactory results of treatment, than the personal desire to obtain the views as well as the experience of a great number of those present. And even if the observations, clinical research and line of treatment of so many here, who are more competent to speak upon this subject than I am, shall not bring out any great advance, I shall nevertheless not regret the introduction of the discussion. If no new remedies are brought forth, no specially different lines of treatment are advocated, still if we catch the inspiration to the proper use of remedies well known, I venture to say that the time is not misspent. Because of the prevalence of this affection, so much the more has it enjoyed the mind of the general practitioner, and in many instances is looked upon as the opprobrium of an art. "Sir, thou hast nothing to draw with, and the well is deep." I use the term "subinvolution" in preference to any other name, such as areolar hyperplasia, chronic metritis, etc., and for two reasons. It conveys in its meaning a fact that there has been an arrest or retardation of all those normal and physiological changes which are embraced under the head of involution, and secondly, one is free from those mists and obscurities, those suppositions and hypotheses, where an honest endeavor to give a name according to the pathological condition of the parts obtains. For one hears of areolar hyperlasia, chronic metritis, hypertrophy of the uterus, sclerosis of the uterus, chronic parenchymatous inflammation, or chronic corporeal parenchymatous inflammation, diffuse proliferation of connective tissue, diffuse interstitial metritis, etc., etc., all of which indicate to the thoughtful student that further elucidation of the nature of the pathological changes of this condition may yet be expected.

As eczema in its early stages differs from eczema in its later stages, and as the pathological conditions of hepatic cirrhosis in its early stages differ materially from those noticed in the later stages, so we often find the subinvolved condition of the uterus frequently presenting variations consequent upon the duration of the ailment, although I believe this is not invariably so. For this reason, more than from natural conservative tendencies, I would retain the old familiar term "subinvolution."

We understand by this that there has been a failure to undergo sufficient reduction in size after delivery or abortion. I infer that something has prevented the ordinary changes incident to the retrograde metamorphosis from taking place, which in the short space of six or seven weeks reduce a uterus of 24 ounces to two ounces. Nature intends a proper and rapid reduction of this organ. How, then, is it that we have this ailment occurring so frequently? That there are known or unknown causes—avoidable or unavoidable—which prevent involution, will not be denied. The art and science of medicine are not only to relieve symptoms and remove morbid conditions, but to worthily stretch out into other and more philanthropic fields; and now in all civilized countries preventive medicine is occupying a prominent place.

After delivery, gradual diminution of blood supply and an increasing activity of the processes of absorption bring about involution of the uterus. But amidst unfavorable circumstances, the ordinary retrograde metamorphosis undergoes some departure from health.

I shall endeavor to present to you some of those unfavorable circumstances or influences, the prevention of which will largely contribute towards

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the normal involution of the uterus. And first amongst those unfavorable influences is fever. An elevated temperature, whether it be from specific fever or septic causes, or inflammatory changes, interferes with general nutrition, and to a marked extent is this the case with the uterus following parturition. Recall to your minds some of the peculiarities of the muscular tissue, of which the uterus forms a good example. Arrest of the function is followed by little or no atrophy, whereas exaggerated action leads to hypertrophy to a marked extent. Irritation of the nerves supplying these muscles has less influence on the contraction of their fibres than direct excitation of the muscles themselves, and regeneration of their fibres takes place rapidly; in marked contra-distinction to the voluntary muscles, the structure of which is not easily restored. In reference to the uterus itself, there is no organ in the body which so readily responds to irritation. The presence of a myoma deranges its vascular supply and leads to hypertrophy. So will a contracted os or a flexed cervix, because resistance is offered to the passage of the blighted elements of the lesser reproductive process. Pregnancy so stimulates the nutritive activities, that an organ of 12 or 14 drachms increases to twice as many ounces during the short period of a full utero gestation, while the inverse process is accomplished in the marvellously short period of six or eight weeks. Our attention should therefore be directed to the uterus in all cases where fever has occurred during the puerperium; *very frequently we will find arrested involution.* Then inflammatory attacks occurring in the body or neck, or in immediate connection with the uterus, as in pelvic peritonitis or cellulitis, may be looked upon as unfavorably influencing retrogression; these are the cases in which one may expect to find subinvolution present.

A lacerated cervix or a lacerated perineum, or any serious injury to the vagina, is more known to arrest involution, not only of the uterus, but of the vagina often.

Then there are cases of general debility—impoverished blood—an enfeebled and disordered state of the nervous system, where the nutritive processes are below par; where there is muscular atony, and consequently but feeble rhythmical contraction of the uterus. In all these cases, one almost invariably finds involution retarded. And these are the very cases where the mother is considered unable to nurse her child; and consequently the stimulus to reflex action, which is an important factor in the production of uterine contraction, is lost—a not unimportant point to remember in all cases of abortion. The retention of any portion of the secundines, displacements, prolapses and flexion, keep up a state of hyperemia which interferes with involution. My experience, however, leads me to believe that displacements are more frequently the effect than the cause of the ailment. The weighty uterus is not so easily steadied, and hence topples over, and generally in the backward direction, perhaps being first influenced in that direction by a distended bladder. Other unfavorable circumstances influencing involution are post-partum hemorrhage, neglect to empty the rectum once in 24 hours, a too early resumption of the upright position, or any local cause whatever productive of venous obstruction. With the knowledge of all these circumstances the physician stands as sentry on guard, and who can say in how many instances disease has been averted, and the physiological changes incident to involution have gone on without let or hindrance. The prevailing idea amongst the laity that the patient should be up and about on the ninth day is productive of no little harm. At times it requires considerable firmness on the part of the physician to break down these old-time prejudices. I look upon too early getting up of etiological importance in connection with subinvolution.

There are certain accidents which frequently occur in connection with the subinvolution. For instance, a subinvoluted uterus is liable to prolapsus—liable to displacement. Indeed I very frequently find, with subinvolution, retroversion or retroflexion, or both, with the ovaries dragged down, enlarged and tender; and in not a few instances I have been enabled to detect a varicose condition of the veins of the ovary. In the majority of cases, these are results of subinvolution—conditions which, although relieved, are liable to return after subsequent pregnancies. Hypertrophy and elongation of the cervix are often present.

As far as symptoms are concerned, I think it almost impossible to determine that subinvolution exists. Indeed there are no pathognomonic symptoms, and there are many symptoms in common

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with other uterine diseases. If there is one symptom to which I attribute more importance than another, and one which more frequently occurs, it is the sense of pressure on the top of the head, just about the position of the anterior fontanelle. Some patients speak of a burning pain there, others as if they wanted to press their head against something, while others will tell you of a sensation there so unbearably distressing that they believe they will go crazy. This is a symptom I have noticed as being not unfrequently present. I do not remember this as a symptom denoted by any author, but it is one I have recognized for the last fifteen or sixteen years. Oftentimes the patient consults you only on account of the headache, and will tell that it is not at all like the headache from stomach derangement, neither is it like neuralgia, but incomparably more unbearable than either. Then in old standing cases, where the headache of this character has been more or less persistent, there comes in the current of the history fits of melancholy, and, indeed, the patients will volunteer the statement that her usual jollity has given place to irritability, by which she really means mental depression. Close observation will often detect an anxious countenance. Catching this anxious and frequently sallow countenance, I often feel pretty certain of my diagnosis before the patient is rightly seated in my consulting-room. With many of these poor women how wearily the day passes, and without a ray of sunshine to brighten their path. To make better their body—to cure them of their ailments is really to regenerate them —is to change a saddened countenance into one expressive of gratitude beyond any pecuniary consideration.

Now a great deal has been written about mental depression and tendencies to insanity in cases of laceration of the cervix of long standing, but I have frequently seen the same symptoms in subinvolution, unaccompanied by any laceration. When you cure the subinvolution, whether it be accompanied or unaccompanied by a lacerated cervix, you cure the melancholy and headache as well, and in general all the other symptoms. But some of these cases cannot be cured with any medicinal agent, either by internal administration or local application, but by some operative procedure, of which I will have occasion to speak. Recent subinvolution will always be characterized by more or less menorrhagia, and in not a few instances those also of long standing. The inference from a clinical standpoint is that the condition of the uterus in those latter cases always remains much the same. One who has at all carefully observed his cases of subinvolution will have noticed some of long standing, which, aside from the history, would appear to have been cases of only recent date, cases in which the uterus, body and neck, still remains soft and large, while others present the sclerosed condition, in which the menstrual discharge becomes scanty. Upon examination, we often find a patulous os and open canal, with considerable enlargement of the uterus. The enlargement is evenly distributed and is readily made out by the bimanual method and confirmed by the sound, which may pass from three to five inches. Excluding pregnancy and abnormal growth, the enlargement in conjunction with the history will seldom fail to establish the diagnosis. There is in general an increased sensitiveness about the uterus, more noticeable when you endeavor to raise the uterus up than when you press upon it from above; and more especially is this the case if the uterus be retroverted or retroflexed. In all such cases dispareunia is a prominent symptom; unrest and an aggravation of symptoms follow cohabitation. I am always suspicious of retarded or arrested involution, where the history of illness dates from labor (either at full term or premature), where it is accompanied by menorrhagia, and especially if menorrhagia occur during lactation. Whatever may be the direct cause, I suspect involution. Then I confirm my suspicions by a diagnosis made negatively; that is, as far as possible, by eliminating the possibilities. Careful physical examination, with the information already obtained, will in general clear up all doubts about the case. In a few cases we find that the menstrual flow, from its first re-appearance, is scarcely beyond the normal, and yet there is marked subinvolution. It will generally be observed in these patients that lactation exercised a sufficient influence to prevent menstruation until some nine or ten months after the birth of the child. I have a patient under my care now (who recommenced menstruation when her child was nine months old, and who continued to nurse the child for five months longer), in whom menstruation has been normal since its first re-ap-

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pearance, now some fifteen months ago, and yet her uterus in large and heavy, measuring quite 3½ inches. In the great majority of cases it is not so, and in recent cases of subinvolution more or less menorrhagia may be looked for.

The treatment of subinvolution differs materially according to the conditions present. When one finds the uterus enlarged, soft, and relaxed, feeling very much like the uterus in the second month of pregnancy, it is noticed that this condition responds very readily and promptly to treatment. The chlorate and bromide of potassium, with ergot and quinine, are amongst the most useful remedies. Two grains each of ergotine and quinine, given three times a day, with 25 or 30 grains of bromide of potassium at bed-time, will in general promote involution. It will be materially aided by douching the cervix with a gallon of hot water night and morning, to the last pint of which I generally add one drachm of borax or alum. If the recovery is not prompt and the cervix looks congested, I scarify it, make applications of iodized phenol or Churchill's tincture of iodine to the endometrium at intervals of ten or twelve days, painting the whole vaginal cervix at the same time. I do this whether endometritis be present or not, and I am satisfied involution is promoted thereby.

It is unnecessary for me here to mention that any displacement should be rectified as soon as possible, as I have before intimated that this accident superimposes an additional element of venous congestion. But when the condition of the uterus becomes altered, and we recognize hardness of tissue, we find a more obstinate resistance to treatment These are the cases which have run on for months and even years with little or no treatment, beyond tonics and laxatives; and these are the cases in which we find extraordinary nervous symptoms developing themselves. Unfortunately a number of those cases will never fully recover, but their condition may often be so ameliorated that they may pass the years to the menopause with comparative comfort. In addition to the line of treatment which has just been advocated, and which must be carried out very vigorously, I am in the habit of applying nitric acid to the whole endometrium, after the manner of Atthill, when the carbolic acid, iodized phenol or tincture of iodine fails to produce a healthy condition of the mucous membrane. The application of the various caustics has a two-fold purpose—*to establish* a healthy condition of the mucous membrane, and *to whip* the uterus into contraction. Undiluted carbolic acid is a very safe and almost painless caustic, if care is exercised in not allowing any to trickle down into the vagina. If after a satisfactory trial of this treatment no very marked benefit be produced, I have tried dilatation of the whole cervical canal to the extent of an inch or more, endeavoring in this manner to produce a strong impression upon the uterus. In one case in particular I believe I obtained much good. As this is an operation not fraught with much danger, it can readily be tried in obstinate cases. But I can recommend with much more hope of success, removal of a portion of the cervix. In a number of my early trachelorrhaphies, I was surprised to find what a marked impression was made on the nutritive activities of the subinvolved organ. In one of my first this was especially noted. The uterus was large, retroverted, somewhat prolapsed, and the cervix lacerated into three sections, and the symptoms of backache and dragging pain were so unbearable that the poor woman had been an almost helpless invalid for three years, with all the nervous symptoms which accompany such a condition. In addition, there was a laceration of the perineum almost back to the rectum. In this case I was associated with Dr. Edwards, of London, and operated April 24, 1881. The uterus rapidly diminished in size, and the woman bloomed into health in a manner wholly surprising to her friends and medical attendants. In a short time after her return home, she attended to all her household duties connected with a farm, and in a letter to me some ten or twelve weeks afterwards, refused to come back to have the perineum repaired, saying, "as long as I feel as well as I do now I will not have the other operation done." Diminution in tenderness was as marked as diminution in size. As I mentioned, the cervix was lacerated into three segments, one small and two large. The small segment was entirely cut away and the operation thus converted into a bilateral one. I was strongly impressed, aside from the mere stitching up and healing of the cervix, that the operation should have produced such an impression upon the uterus as to start up afresh the nutritive activities which had

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been arrested some four years previously, and thus involution was brought about.

Another case of subinvolution without any laceration of the cervix, in which I was associated with Dr. Fraser, of London, in which the uterus was so large and the menorrhagia so profuse, that some considerable doubt was expressed as to whether there might not be a fibro-myoma in the walls of the uterus. The patient was much exhausted from repeated periodic hemorrhages and was incapacitated for work. She had the best of treatment, both constitutionally and locally, but with only temporary benefit. I saw her on Oct. 16, 1884 (uterus then 4½ inches), when we agreed that removal of the cervix would afford the best chance of recovery, might wake up the uterus, as it were, and accordingly on November 8th I removed it with the écraseur and scissors, using the Paquelin cautery to restrain the hemorrhage. It was completely healed in four weeks, and the improvement in the general condition was uninterrupted. The menses became regular both as regards time and quantity, and has remained so up to the present time. I asked Dr. Fraser to examine the uterus, which he very kindly did on the 29th inst., and his report is that the body of the uterus is normal in size (measurement 1¾ inches), menstruation normal, and her general health good. It will be remembered that she had a long course of treatment, of applications of caustic to the uterus, ergot, quinine and strychnia, etc., and with little or no benefit. No treatment except tonics after the removal of the cervix, and the improvement commenced at once.

Every one who has had any experience in gynecology can bear witness to the evident improvement of the subinvoluted condition of the uterus after what has been called Emmet's operation, now known as trachelorrhaphy. Dr. Emmet himself says: "For many years past I have met with few or no cases of subinvolution which were not due to laceration of the cervix." And again he says: "If the operation be performed after the different sources of irritation have been removed, the uterus will be reduced rapidly in size, and the patient will not only regain her health, but will remain in the full enjoyment of it afterwards." One hesitates in differing from so good and excellent a man as Dr. Emmet—such a careful observer, and one in whom wonderful results have been the outcome of *such careful observation*. But I do not believe that *complete recovery* will occur in every case, at least such has not been my experience; but that in the great majority of cases similar results *will follow*—the involution will take a fresh start and become completed. But that there are cases of subinvolution in which there has been no laceration of the cervix, and in which the improvement has not been satisfactory under the usual treatment, I question if any one here will deny.

Just as in some cases of enlargement of the tonsils in children—you improve the general health, pay careful attention to the function of the skin, kidneys and bowels, endeavor to correct faulty nutrition, apply topical applications to the tonsil, use frequent compression of the gland between the fingers, and still the gland diminishes very little in size. But while the health is in the best possible condition, if you remove a small portion of the most prominent part of the tonsil with the tonsillitome, it appears to start up a new condition whereby absorption takes place and the enlarged tonsil gradually melts down. In a similar manner, with my limited experience, a removal of a portion of the cervix in obstinate cases of subinvolution produces like results. The operation surprises the uterus; increased nutritive activities result, and involution is set up.

When I was in Europe in 1876, '77 and '78, it was quite the fashion in some hospitals to cauterize the cervix deeply with caustic potash in enlargement of the cervix with subinvolution, but the subsequent contractions in the cicatricial tissue have, I believe, justly made the operation unpopular. It was the impression made on the uterus by the powerful effect of the escharotic that produced a revulsive action on that organ.

In some cases wedge-shaped sections have been taken from the cervix with good results, not only to the enlarged cervix, but also to the uterus itself, and, as I said, in a few cases I have had fairly good results from dilatation. In that very excellent work of the late Dr. John Thorburn, of Manchester, whose untimely death took place while his work was going through the press, he quotes from his colleague in reference to the operation on the lacerated cervix, and says "that the operation must often be looked upon as merely a step in the course of treatment of a uterine disease," a statement with which I am fully in accord. Any

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operation on the cervix for the promotion of involution must only be looked upon as a means to an end. It is all-important, therefore, that the system should be put into the best possible condition. Local and constitutional treatment must join hands, otherwise we will be frequently disappointed. In defective nutrition the uterus suffers in common with other organs, and this alone greatly predisposes to arrest of involution.

BISMUTH IN INFLAMMATORY AFFECTIONS OF THE INTESTINAL MUCOUS TRACT.

BY A. C. GAVILLER, M.D., GRAND VALLEY, ONT.

In a case of acute dysentery which came under my care lately, I gave bismuth tris nitrate and opium as the medicinal treatment, in doses of fifteen grains of the former to one grain of the latter, every two or three hours. The symptoms became no worse but did not improve, so I doubled the dose of bismuth and continued the opium as before The pain speedily became worse and finally agonizing, after about twenty-four hours' treatment with the increased dose of bismuth. The evacuations became excessively frequent and of a garlic-like smell, while the same odor was readily perceptible in the breath. Thinking the bismuth might be impure and contain arsenic, I changed the treatment to plumbi acetat. grs. ij., opium gr. j., every two hours, with rapid improvement in pain, speedy fall of the temperature which had been rising rapidly, and a rapidly lengthening interval between the stools, which, with the breath, soon lost their garlic-like odor.

In twenty-four hours the motions had diminished to one in six to twelve hours, and the pain almost disappeared as long as the medicine was continued. I then gave pulv. kino co., grs. xx., every 2-3 hours and continued it with lengthening intervals until convalescent. I now wrote to Messrs. Lyman Bros., of Toronto, from whom I had procured the sample of bismuth which I had been using, and stated my suspicions as to its purity and the symptoms of irritant poisoning produced by it. They promptly submitted some of the bismuth from which mine was taken to Prof. Hays for analysis, who found no arsenic; the only impurities it contained being traces of iron and lime. I may state that the bismuth was of Howard's manufacture, a name which is considered a guarantee for purity. Nor could the bismuth have become contaminated with arsenic after I received it from Toronto, as I kept it in a bottle which had contained only bismuth for years. This case is instructive as it shews:

1st. That bismuth may become soluble in the intestinal canal, probably through chemical combination with the sulphuretted hydrogen so commonly found as a result of the decay of albuminous foods or dysenteric stools, which usually contains more or less (in bad cases considerable) albuminous material, through chemical change a sulphur and a hydrogen compound are formed, the former giving the dark color so often observed in the stools of patients taking bismuth, and the hydrogen giving the garlic-like odor to the stools, and by absorption into the circulation and inhalation by the lungs, to the breath also.

2nd. That bismuth, when so changed, acts as an irritant to the mucous lining of the intestines.

In these points a similarity to arsenic is shown, a similarity at which we need not be surprised when we view the close chemical relationship existing between the two metals.

The practical point that I would adduce is this: use bismuth with caution in active inflammatory affections of the intestinal tract, where rapid chemical and fermentative change is going on, as where the changes which render the bismuth poisonous are most readily effected.

Correspondence

To the Editor of the CANADA LANCET.

SIR,—In reading, not long ago, I came across the following professional aphorisms of Amédée Latour, which are sufficiently curious and shrewd to merit reproduction. I have endeavored to make the translation as literal as possible:

1. Life is short, patients fastidious and the brethren deceptive. 2. Practice is a field of which tact is the manure. 3. Patients are comparable to flannel, neither can be quilted without danger. 4. The physician who absents himself runs the same risk as the lover who leaves his mistress; he is pretty sure to find himself supplanted. 5. Would you rid yourself of a tiresome patient; present your bill. 6. The patient who

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pays his attendant is but exacting, he who does not is a despot. 7. The physician who depends on the gratitude of his patient for his fee, is like the traveller who waited on the bank of a river until it finished flowing so that he might cross to the other side. 8. Modesty, simplicity, truthfulness! cleansing virtues, everywhere but at the bedside; there simplicity is construed as *hesitation*, modesty as *want of confidence*, truth as *impoliteness*. 9. To keep within the limits of a dignified assurance without falling into the ridiculous vauntings of the boaster, constitutes the supreme talent of the physician. 10. Remember always to appear to be doing something—above all when you are doing nothing. 11. With equal and even inferior talent the cleanly and genteely dressed physician has a great advantage over the dirty or untidy one.

Yours, etc.,

ARTZ.

OUR NEW YORK LETTER.

From our Special Correspondent.

DR. GIRDNER'S TELEPHONIC BULLET PROBE, WITH CASES.

NEW YORK, Oct. 18th, 1887.

The telephonic bullet probe, and induction balance, are two cleverly constructed little instruments for locating any metallic substance in the human body, and designed by Dr. Girdner, of this city, who, with the help of Prof. Bell of telephone fame, has perfected what bids fair to be an invaluable instrument in general, and particularly in military surgery. The induction balance is constructed on the plan that,—should perfect balance be established between primary and secondary currents from a battery, there will be perfect silence in an ordinary telephone receiver attached to the secondary current, and so the instrument is made up of these parts,—first, there is an ordinary six cell battery, to this is attached a rheotome which interrupts the current, which then goes to a coil, part of the adjusting coils, and then to another coil, part of the exploring coils, and then back again to the battery; this makes the primary interrupted current. The secondary current is generated by coils, one making the second coil of the adjusting coils, and the other forms the other half of the exploring coils. The wires from these are attached to the telephone receiver and make the secondary current. Now, if the exploring coils are perfectly balanced there is silence in the telephone, but if they are brought within three or four inches of any metallic substance, the balance is disturbed and a sound produced. To keep them perfectly balanced they are imbedded in paraffin in a wooden block with a handle, convenient to move about any part of the body. The adjusting coils are merely to check and adjust the exploring coils. To detect the foreign substance, the telephone is placed to the ear and the exploring block is gently passed over the suspected parts, and as soon as it comes near the metal there is heard a high pitched musical sound, gradually increasing until it is heard at its maximum at a spot directly over the foreign substance; this spot is called the *sonorous spot*. The sound is characteristic, and there can be no doubt that you are very near some metallic substance. You can count the nails in the floor or table with it, or discover metal anywhere within three and a half inches. And now, after finding the sonorous spot, the telephonic probe is brought into play. This is made up of a piece of flat steel, moistened and laid on the surface near the sonorous spot, to this is attached a wire, the other end of which is attached to any telephone receiver, while the probe or exploring needle is attached to the other knob of the telephone by another wire. Now it is complete. The tissues of the body form the battery fluid, the steel plate one element of the battery, the foreign metallic substance in the body the other, and when the probe or needle is thrust in at the sonorous spot, and comes upon the metal, a circuit is established, and there is a sharp "click" heard in the telephone. Touching bone or tissues has no effect upon it, so when the click is heard you know your probe is touching a metallic substance. Dr. Girdner has been experimenting for the last two years, and has relieved many an old army veteran of his interesting but painful memento of his soldiering days. It is merely an interesting coincidence that Nélaton's probe was invented to locate a bullet in the ankle of the great Garibaldi, while one of Dr. Girdner's first cases was to locate a bullet in the ankle of a colonel, received in the battle of Chancellorsville. Dr. Girdner has given me leave to quote some of his cases, which I shall append in his own words, as published in the *N. Y. Med. Journal*, of September 17th:

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CASE III.—A young man received a pistol-shot wound in the right arm, the ball entering about the point of insertion of the deltoid muscle. This patient was under the care of Professor William T. Bull, by whom I was invited to examine him a few days after the accident happened. Exploration of the arm and axilla with the induction balance gave negative results, but when the coils were brought over a point on the top of the shoulder in front of the origin of the deltoid and about the junction of the acromion process with the spine of the scapula, a response was had in the telephone which was distinct and heard by several medical gentlemen present besides Dr. Bull; pressure also over this spot caused pain. The patient told me that as he saw his assailant approach from the front prepared to shoot, he turned his right side to him and threw up his right forearm on a level with his eyes, and thus the bullet, which would otherwise have struck the face or head, was received in the attachment of the deltoid, and the bullet, following its horizontal course, would naturally traverse the entire length of the deltoid while the arm was held in this horizontal position. The shoulder-joint not being involved and the patient's general condition being so good, it was decided not to do an operation for the removal of the bullet, and the patient recovered shortly, still carrying the bullet in his shoulder.

CASE IV.—A man, aged forty-four years, received a bullet in the right ankle at the battle of Chancellorsville. I quote from a copy of the history of the case furnished me through the kindness of Professor T. M. Markoe, whose patient he was, and by whom I was invited to examine him.

"Right ankle is much enlarged and tissues about it thickened and indurated. The lower ends of both tibia and fibula show increased size and involucral action; movements of ankle-joint limited owing to surrounding enlargement; one inch and a half above tip of external malleolus is a sinus which discharges a small amount of pus daily and admits a probe the distance of one inch and a half in the direction of the centre of the limb."

When an ordinary silver probe was passed into this sinus, its walls for a greater part were found to be composed of dead bone, and the bottom of the sinus everywhere communicated to the hand the presence of dead bone or some hard substance, and no man could tell certainly if it were lead or dead bone which he was probing, or if indeed there was any lead at all in the wound, a condition of things such as, I am informed, inspired Nélaton to devise the porcelain probe. The Nélaton probe was next introduced, but no staining of the porcelain could be found, nor was this surprising, since the bullet had lain in its present position in the tissues for twenty-four years, and, as was shown on its removal was thickly covered all over with a coating of lead salts, so that the porcelain could not be stained by the metal.

The telephonic probe was now introduced, and after probing a hard substance for a while, which was bone, without response, the bullet was struck, and a loud distinct "click" was heard in the telephone, announcing, beyond the shadow of a doubt, the precise location of the missile.

As an audience was present which had been invited to see the induction balance used, I now began an exploration of the ankle with the coils, and soon found a sonorous spot in front of the ankle which gave a very clear sound, and was heard by Dr. Markoe, Dr. Peabody and others. As Dr. Markoe held the telephone to his ear, listening to the unmistakable announcement by the bullet of its presence in this man's leg, he enthusiastically said to the audience: "Gentlemen, I wish every man in this room could hear what I am listening to at this moment." This sonorous spot was, of course, the point on the skin nearest to the bullet. Dr. Markoe now enlarged the sinus with the chisel and hammer, and removed from between the tibia and fibula a thickly incrusted leaden bullet weighing 200 grains, and the patient made a good recovery. CANUCK.

Selected Articles.

REST IN THE TREATMENT OF DISEASE.

BY H. C. WOOD, M.D., LL.D.

The object of the present lecture is to give you such ideas of the endeavors of the physician in the application of rest to the treatment of disease that you may intelligently co-operate with the doctor in charge of the case. You will remember, I trust, from your early childhood's teaching, that when Adam fell it was announced that by the sweat of man's brow he should earn his daily bread. In these later days we have changed all that, and a great many of the higher portion of man earn their daily bread not by the sweat of the brow but by the toil of the brain. In early childhood, when the little atom of humanity should be out in God's sunlight, he or she is put in school in cramped quarters, leaning over desks and learning lessons, struggling with toil, and weariness to develop the brain and nervous system at the expense of the physical powers, if thereby in the future he may climb over some other little atom, who, like himself, has been sacrificed to the Moloch of culture. As we grow in age this toil ever increases, until at last, when early manhood, or, perhaps, early womanhood, is reached, life is one of perpetual nerve-strain Many years ago, when old Professor Jackson, himself an example of this ruin which is wrought by overstrain, used to lecture to us at the University of Pennsylvania, he taught us this invaluable lesson, that every human being has a certain amount of nerve-force, which is produced by his system daily, and that if more nerve-force than the daily product be used, there will be a continual drawing on the reserve power, until there comes a time when nervous bankruptcy results. It is precisely the same as when a man with a fixed income lives on through the years, spending each year only a little, it may be, more than his income, but, as this continues, at last the capital begins to feel the drain, and, with an accelerated pace, ruin comes on.

Few of us, I think, clearly understand how much of nerve-force it requires simply to live. Remember that the heart beats seventy to eighty

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times a minute. These great strokes of the central pump must go on through night and day in order that the blood may freely flow through the system. The great tides of air must be drawn in and forced out of the lungs continually, at the expenditure of an enormous amount of nerve-force. When digestion is to be performed, it must be at the expenditure of nerve-force. Most of you have learned from experience this fact, that when you are over-tired a meal will not be digested, which, at other times, you would be able to appropriate without trouble. Many years ago, when a boy, I walked across Chester County from Maryland to the Chester Valley. I had nothing to eat all day, and at night, when we came to a farmer's, he loaded his board down with heavy short-cake. Now, short-cake is a substance that yields only to the digestion of untired boys and ostriches. All through that night, and for several weeks afterwards I wished that I had never been born I had so exhausted myself that there was left no nerve-power to digest this unreasonable food, and, as a result, it underwent fermentation, and poisoning occurred. The heart must act and air must be breathed, but digestion is not absolutely essential, and, consequently, when a man or woman becomes over-exhausted, digestion suffers and no food is taken. When power is failing and strain is greatest, too little fuel is supplied to meet the demand, and so, little by little, this vicious circle is passed around, until it ends in failure and bankruptcy, which is more and more complete. Again, often after an acute disease there is left a condition of exhaustion in which the vital powers are not able to supply the needs of every-day life and at the same time accumulate strength. Here, again, rest is necessary.

In health, to meet company and associate with our friends adds new life and vigor and power, but the entertainment of people by a woman who is feeble and worn out requires a physical expenditure which is often a great strain. Hence comes the exhaustion of an excessively active social life. Hence it has come that as a central idea of the rest-cure isolation is an important feature. Here there is of course great danger that there shall be rest-cure quacks, just as there are quacks with almost every form of special therapeutics. This is a remedial measure which is to be employed with care. It is not a stereotyped and set mould into which every little fragment of exhausted humanity is to be crowded and made to fit whether or not. In some instances it is to be applied with great severity, while in other cases it is only the principles which underlie it that are to be used.

The principle which underlies the rest-cure is, in the first place, the absolute avoidance of all physical expenditure of strength, so that there shall be opportunity to accumulate the wasted income. One of you lives beyond financial income, and you then go to some hamlet and live in a corner until the income thus saved adds to the capital, and the fortune is restored. This is precisely what the doctor attempts to do when he applies the rest-cure. He puts the patients to bed, keeps them quiet, and does everything to avoid the expenditure of a single unnecessary grain of vital force. He takes that little grain of nerve-energy and uses it to digest a little particle of food, and thereby adds to the exhausted power. It is a very common thing in hungerless patients, put to bed under proper surroundings and kept quiet, to see the appetite return at once. Under these circumstances the appetite is the measure of the deficiency or of the surplus of nerve-power. If there be too little power for nerve-digestion there will be no appetite. When there is a husbanding of the resources the appetite returns.

If a patient is put to bed and allowed to lie there perfectly quiet, then his muscular system is in much the same condition as is that of the fakir's arm. He ties up his arm, and keeps it so through the decades, and as a result there is a withered, structureless mass without power, the muscular fibre absolutely gone out of it. It is in the muscles of the human being and of the animal that the animal heat is chiefly produced. It is chiefly in the muscular system that are burnt up the effete substances that are the waste of the body, so when the muscles waste the animal heat fails, and the power to destroy effete matters fails. If, then, a patient is put to bed and kept perfectly quiet, there is lack of oxygenation of the tissues, and a gradual loss rather than a gain of power. The importance of rest in the treatment of disease has been long recognized, but it is to the sagacity of Dr. S. Weir Mitchell that we are indebted for the comprehension of the fact that we must not only try to conserve nerve-power, but to also supply power by maintaining the activity of the muscles in such a way that there shall be no draught upon the nerve-centres. If I move my arm there is an impulse flows out from the brain, and, by virtue of this expenditure, the arm is moved. If, however, I apply electrical stimulation, the muscle contracts, the structure of the muscle is maintained, and the activity of the muscle in destroying waste matters is kept up, but there is no expenditure of nerve-power.

Again, where there is no contraction of the muscles, there is a tendency to the accumulation of the juices from the blood in what we may call the by-roads of the system. It is not chiefly the blood that is in the vessels that directly nourishes the body, but the juices that have escaped from the blood that nourish the tissues. Along with every blood-vessel there runs a channel through which these juices that are not used are taken up, carried back into the trunk, and returned to the blood. When the muscles are inactive these little

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channels become choked up. When I forcibly contract my arm all these little channels are squeezed by the muscles, much as you squeeze a sponge when you take it in your hand. The squeezing of the muscles drives the blood on towards the centre of the body, and also causes the return of these juices to the trunk, and finally to the blood. With absolute rest and quiet there is very little return, and the parts become choked with the half-used blood or flesh-juices. Electrical stimulation causes contraction of the muscles and aids very much in the return of these juices, but it is chiefly single muscles that we pick out by the electrical current. Therefore, partly for the purpose of aiding in the nutrition of the muscles, and partly for the purpose of returning these juices to the body, we add massage to the electricity. I have gone a little into the details of the principles involved because it not infrequently happens that persons in applying massage make mistakes because they do not appreciate the principles. Sometimes you will see a person rubbing the limb in a downward direction. This is contrary to the direction in which you wish these flesh-juices to go. You do not want to drive them from the arm into the fingers. You want to force them from the extremities to the centre. You continually try to work these juices from the outermost parts and return them to the central portions, where they will soon find their way into the blood.

Under certain circumstances the nurse is called upon to apply electricity. This is always an unfortunate thing, and the treatment sometimes fails on this account, for in using electricity for the purpose of which I am speaking, constant judgment is required to know what succession of muscles to cause to contract and also how much of power to employ. It is always much better, where it is possible to do so, to employ some of the younger members of the profession whose time is not as valuable as that of the middle-aged man. I shall not occupy your time with an elaborate discussion of the methods of applying electricity, but shall only call your attention to those parts of the electrical treatment which it is the duty of the nurse to understand. In the first place, it is the duty of the nurse to know how to take care of the battery. There are various forms of faradic batteries, which are the ones employed in this method of treatment, but they all have certain features in common. There is always a cell which contains some acid liquid, into which is plunged a plate of zinc. When the battery is in action the zinc is gradually eaten up by the acid, and the acid is gradually exhausted by the destruction of the zinc, so that the battery destroys itself. The nurse should see that when the battery is not in actual use the zinc is removed from the acid. In the form of battery which I have here, the zinc is removed by simply pulling up this rod. In other forms of batteries you have to loosen a screw which holds the zinc, and lift it out and put it into another cup. It is also the duty of the nurse to see that the battery is so kept that there is no spilling of the acid. The nurse should always see that the phsician is provided with warm water, in which he can wet the sponges, and it is well to use a little salt in the water. The water when first brought into the room should be hot, otherwise it may become cold before the séance is over.

With regard to massage, I believe that every thoroughly-instructed nurse should understand it. It, however, cannot be taught by lectures, but must be acquired by personal instruction. I myself know the theory of massage pretty thoroughly, but the practice of it is an entirely different thing. This requires training and the repetition of certain muscular movements until they are done firmly, smoothly and gracefully. In massage the movements should commence with the fingers. It is well to begin with a rotatory movement in the joints. Then you begin the massage proper. There are three different movements employed,—first, stroking; second, kneading; third, a beating movement, which is made with the fingers acting like so many sticks. The stroking movement is especially directed to driving the juices out of the part operated upon towards the centre of the body. It should be made with the two hands simultaneously. The pressure must be made with the ball of the thumb and the palm of the hand. Before making this movement, if the skin is very susceptible, it should be greased with sweet cocoanut oil, vaseline, or some other unguent. Remember always that this is not rubbing. If you rub a patient, you want to irritate the skin. When you are practising massage you do not want irritation of the skin, but you especially desire to affect the deeper structures. The stroking movement is sometimes made simply with the upward movement of the two hands. It is better to grasp the limb with the one hand above the other. Then you commence the movement with the left hand, and follow it with the right, then slip back with the left hand, while the right keeps up the pressure.

In the kneading movement the effort is made to pick up the individual muscle, and so grasp it between the thumb and forefinger that you roll the muscle on itself. The movement in striking or beating is made with the fingers perfectly loose, and should be made from the wrist and elbow, never from the shoulder. It should be made as rapidly as possible, and carried up the entire limb.

The question of feeding a patient who is undergoing this method of treatment must be decided absolutely by the doctor. It is the nurse's simple business to carry out the directions given by the doctor. The doctor under these circumstances,—and I think he should do so in the treatment of

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all diseases,—should make out a written schedule, so that there can be no possible doubt as to the orders. Some years ago I had an important patient suffering with typhoid fever, who, I believe, was killed by a mistake of the nurse. It certainly was a very distinct solace to me that the orders of the nurse were plainly written. It was absolute carelessness on herpart. In all cases of disease the orders for the nurse should be written A schedule should be made out. We may start at eight a.m. with breakfast. At nine o'clock the bath may be given. In giving the bath it is essential that the patient should be absolutely nude, and she should be put between blankets. The water used should be as hot as can be borne. Unless otherwise directed, it is better to add a little heartshorn or ammonia to the water, rather than to use soap. From one-half to one ounce of ordinary aquæ ammoniæ may be added to the small bucketful of water This will leave the skin soft and in better condition than if soap has been freely used. The bath should occupy about thirty minutes. In most cases the patient is much better if rubbed with ice immediately after the bath or during the bath. This is not to be done unless ordered by the physician. If ordered to rub the patient with ice, you do not take a great ice berg, thrust it on the skin of the patient, and then go to sleep. You take a piece of ice, and, with an up-and-down motion, rub it over the limb until the whole surface has been covered. Then dry with a coarse towel. You will find that under this treatment the pale, muddy skin rapidly becomes pink. We have no power equal to this use of hot water and ice in drawing the blood to the surface of the body and in stimulating the skin.

At ten o'clock the patient may have massage. At eleven o'clock milk or some food will probably be ordered. At one p.m. dinner will be taken. Medicines, if employed, are to be put in their proper places. At four o'clock electricity may be employed and a glass of milk given. At five o'clock supper will be given. Seven or eight o'clock will be bedtime. Usually the patient is in bed all the time, but I think patients progress more rapidly if they are permitted to be up a portion of the time.

In making the toilet of these patients never allow them to do up their hair. The great mass of hair which many women have is in itself a labor to comb, and the holding up of the arms is especially tiresome, yet frequently this is one of the points on which patients are most stubborn. In a case of strict rest-cure, you must cut up the food of the patient, and see that the patient does not feed himself or herself. These are the cases in which the method is being used in its utmost strictness. If you have not had definite instructions with reference to these points, ask the physician what he wants you to do.

The hours of the day are twenty-four, but when a person is confined to bed they seem to become forty-eight. In this method of treatment there is so much to be done, in the way of bathing, massage, and electricity, that much of the time is past without the patient knowing it. There are, however, hours for which it is better to provide some amusement for the patient. I think, therefore, that every nurse, or every nurse who hopes to reach the highest point in her profession, should study the art of reading. The matter read is to be selected by the physician. It is very easy for the patient to tyrannize over the nurse who reads to her. A nurse recently told me that she had to read seven hours to the patient. This is tyranny, and it is the business of the physician to protect the nurse as much as it is his business to protect the patient. There is, perhaps, nothing which develops selfishness more rapidly and thoroughly in human nature than does a long period of chronic invalidism.

What I have been saying to you applies especially to the treatment of chronic diseases, but it seems to me to be a matter of importance that you should have a clear idea of the application of the same principles to acute diseases. It also seems to me important, in order that you may be *en rapport* with the medical profession, that you should have some understanding of modern therapeutics and ways of treatment. Therefore I shall at this point branch out a little from the discussion of my main subject, coming back to show you how rest comes into the treatment of all diseases. There was a time when medicine was a purely empirical, dogmatic art. There is of necessity still much of dogmatism and empiricism in the practice of medicine—that is, we are forced to do certain things because experience has taught us that certain things do good—but every day are we, as scientific physicians, getting the power of treating disease intelligently and rationally. Perhaps the greatest nuisances that the doctor ever encounters are those amateur doctors, usually, I am compelled to say, of your estimable sex, who think that they know medicine; the amount of their conceit is in direct proportion to the depth of their ignorance. Under these circumstances you will find that the great stronghold out of which no argument will drive these amateur triflers with life is, "I have seen, and therefore I ought to know." Once I was in the smoking room of a trans-atlantic steamer, and there was one of these pestilential creatures there, who this time wore a hat. He was continually bothering me with questions as to the why this and that man had been cured by this or that irregular practitioner after regular physicians had failed. Finally, after I had for some time dodged his questions to the best of my ability, a little Frenchman spoke up, and said to the questioner, "Your talk remimds

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me of a story." He then told the following story, which I regret that I cannot give in his broken English: "Once in a village there was a shoemaker who was very sick of a fever. Some one who was visiting the wife said to her, 'Your husband has been sick for a long time. I can cure him. Give him as much pork and cabbage as he can eat, and he will get well of the fever.' The next day the woman fed her husband on pork and cabbage, and lo and behold, the fever left the man and he recovered. He put down in his note-book, for future reference, 'Pork and cabbage cures fever.' A few days later there was no ring of the anvil in the village smithy. The shoemaker went to inquire what had become of the blacksmith. He was told that he was sick with a fever. At once he said, 'I know what will cure him. Give him pork and cabbage.' The wife adminstered pork and cabbage, and the blacksmith incontinently died. The shoemaker, on seeing the symbols of death on his neighbor's house, gets down his note-book to see if there has been any mistake. No, there it is, black and white, 'Pork and cabbage cures fever.' Finally, after rubbing his head awhile, he exclaimed, 'I have got it!' and he wrote in his note-book, 'Pork and cabbage cures shoemakers with fever, but it kills blacksmiths.'"

This pork-and-cabbage style of therapeutics was the only method of treatment of disease forty or fifty years ago; but, thanks to homeopathic physicians, who emboldened the profession to watch the course of disease without treatment, the regular profession learned this important fact, that most acute diseases have in themselves a tendency to recover. It is the physician's duty to study the dangers which attend the disease and the methods which nature takes to bring about recovery. He should also study the drugs which he has at his command, and by inductive reasoning apply his knowledge of drugs to his knowledge of the dangers of the disease. To make this clear, let me take you out on the broad Atlantic, where the sunlight is thrown back from every wave as the steamer ploughs the furrows that unite two continents. The captain notes that the mercury is falling. The mate sees a little cloud gathering in the west. To-morrow the hurricane will be upon the vessel. The captain cannot put back the hurricane, but he can make everything snug and tight about the vessel, and he can so turn the helm that the ship goes before the wind. He knows the dangers and avoids them. He goes with the tempest and does not try to oppose it. This is generally the position of the physician in a case of acute disease. We cannot cure typhoid fever, but we can, if we study typhoid fever properly, carry the ship right on through the tempest and bring it into quiet waters.

The first thing that we learn in studying typhoid fever is, that in the majority of instances it causes death by producing exhaustion. We learn also that sometimes it kills by producing disease of the bowel with ulceration, and that a little particle of solid food getting upon one of these ulcers may tear open the bowel with fatal results. We study the dangers and see how they are to be avoided. Of all the dangers in typhoid fever exhaustion is the most serious. The successful treatment of typhoid fever rests not upon the administration of drugs, although this may be important, not upon the meeting of this and that symptom as it arises, although the skilful physician does that, but it rests especially upon the fact that the disease has been recognized early, and that every grain of strength has been husbanded, so that in the coming weeks, when it shall be needed, it shall be present. I have often compared a patient with typhoid fever to a ship on a coast in a storm. The ship is being driven on to the point of rocks, but beyond the jutting promontory is smooth water and safety. If the captain can carry the ship around that jutting rock, it makes no difference how close he may come to it, if he but clears it he is safe. So, in typhoid fever there often comes a time when it is the last grain of strength that holds the man as he crosses by the edge of the open grave. If you can hold him for a few hours, until a little strength is gained, he is safe. The grain of strength which you as a nurse wasted by allowing the patient to get out of bed three weeks before, may be the grain of strength which might have carried the man through. In every case of such disease it behooves you to remember that every particle of strength that you can save is perhaps life to that patient. The moment that there comes the slighest indication of the approaching storm the patient should be put to bed, kept quiet, and not allowed to make any motion or exertion. Many a doctor orders absolute rest, and the nurse perhaps thinks that she is carrying out her instructions, and the patient dies because the doctor is careless and the nurse is ignorant. Under these circumstances absolute rest means absolute rest. It means that the patient shall be put in bed, and not allowed to get out for anything. The patient may feel fairly strong, and will insist that he can get out of bed for the natural acts of the body. The patient is to be kept in bed, and under no circumstances, as you value your professional honor, do you let him rise. If the house is on fire, throw him over your shoulder and carry him out, but do not allow him to rise by himself

Never allow these patients to make their own toilet. If a bath is ordered by the physician, which apparently involves a waste of strength, see to it that it is your strength and not the patient's that is wasted. Do not let the patient do anything whatsoever. Do not let him make any exertion. The writing of a letter may mean death. A man may write a letter to his wife which is his own death-warrant.

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This application of rest in the treatment of disease goes further. In all diseases the powers of the nurse should be directed to the saving of the strength of the patient, and you should remember that there is a mental worry which is more exhausting than physical exertion. Mere uncleanliness, a low voice to a deaf patient, a loud, high-pitched voice to a patient whose hearing is acute, failure to quickly understand the whims and caprices of a sick man or woman, are tormenting things which take away the rest and destroy the life of the patient. We talk about uncleanly nurses, and we all know the type of nurse which was pinned up by Dickens for all ages, as the entomologist pins up the beetle and watches its unclean movements, but the unclean nurse is scarcely as bad as the fussy nurse. In one of the hospitals during the war there was a young soldier who happened to be good-looking and near the door. The majority of amateur nurses that came into the room wanted to do something for him. A young lady came into the room one day and said, "Can I not do something for you?" "Perhaps," he replied. "Can't I wash your face?" "Yes if it will give you any pleasure, but you are the thirty-seventh that has done it to-day." A nurse who is continually shifting the blinds, moving about the room when there is no need for it, asking the patient whether he wants this or that, or is excessively active and alert, is a great evil.

Now, nurses of the University Hospital, let me say one more word to you. I think that your calling is one of the highest to which a human being ever devoted herself. You remember that the Bible tells us that, "He giveth His beloved sleep;" but sleep is rest, so will you, I trust, comport yourselves, that in the future, as you go from house to house, it shall be said of you, "She gave me rest."—*Therapeutic Gazette.*

ON THE EARLY RECOGNITION OF HIP DISEASE.

BY A. J. STEELE, M.D., ST. LOUIS, MO.

Knowing that formerly the mortality from hip disease was thirty per cent. of all cases, and that of late it is but five per cent.; and secondly, that marked deformity was then the rule of the cases that recovered, and that now serviceable limbs are had, we realize what better understood pathology, earlier diagnosis and improved methods of treatment have accomplished in this affection.

My old preceptor used to teach that the first duty of the practitioner was diagnosis, and that if we would benefit our patients it should be made early. As we now know how rationally to treat hip disease, excellent results, if such we would have, will turn upon the early recognition of the affection. In nine cases out of ten it is the family physician whose attention is first called to these cases; thus all the more important that he should early diagnose it, that he may at once institute treatment himself or relegate the case to the surgeon. It shall, therefore, be my aim at this time to so plainly outline the early indications of the affection that it may be readily recognized by all.

In the pathology of hip disease there is nothing so peculiarly different from diseased processes of the joints occurring elsewhere, that it should merit a special name. We might, perhaps, with as much propriety, speak of "liver disease," of "brain disease." Still, on account of the size of the hip-joint and the peculiar features of the disease, its symptoms, its history, its course, and the special treatment required, it does merit a separate name. Thus, from time immemorial it has been designated *morbus coxæ.*

We have but to remember that it is a chronic inflammatory affection, originating usually in the bone, and doubtless strumous in character, peculiar to the age of childhood, rare in later life. When far advanced, readily recognized by the meanest tyro in medicine, but in its incipiency often difficult to diagnose. No single sign is indicative of it, but a combination of the symptoms presenting themselves makes it comparatively certain. These symptoms are as follows (not, however, in the order necessarily in which they present themselves): Lameness, pain, change in position and apparent length of the limb, loss of motion, wasting of the muscles of the limb, tenderness on motion or pressure and enlargement of or about the joint. In making the examination the patient should be undressed and examined both standing and lying. For the latter a table covered only with a blanket or a quilt is best. And, 1st, of the *limp.* It is the lameness that probably first excites the attention of the mother to the child, perhaps neither severe nor constant, but more marked in the morning on arising, and gradually wearing away during the day. I cannot say that there is a limp peculiar to hip disease, because its character varies with the stage of the affection, and yet it may be that the patient favors the hip-joint, *i. e.*, though the ankle moves and the knee has motion, yet that the hip is stiff. The foot is put down firmly, it does not drag, as in paresis.

It is an interesting study, and I have indulged in some observations on the subject, of determining the part affected by the peculiar lameness or gait of persons as seen in their walk. Each joint has a characteristic limp; each part also. Recently I diagnosed Pott's disease in a patient seen for the first time, coming up the steps to my residence, from his peculiar carriage alone, the disease having been unsuspected by physicians previously

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treating him for stomach and kidney troubles respectively. The limp in hip disease is due to the patient restraining the movement of the joint on account of pain, or because the joint is fixed by reflex contraction of the muscles. The lameness differs from that of partial paralysis—there is a stiffness in the motion. At first the child favors the limb; there is a certain awkwardness, the foot is not raised so high, the step is shorter. Later on, falls occur and the child manifests less confidence in the affected limb. Much activity during the day increases the limp. The effort of the child is to save the limb. Thus, in the limp of early hip disease, we have a sign always present, and from its peculiarity, almost diagnostic.

2nd. Perhaps the next more important sign is the *pain*. This, however, varies, sometimes so slight throughout the continuance of the affection as to be misleading, and again so severe as to excite the keenest sympathy for the little sufferer. It varies, not only in different cases, but also in different stages of the affection. Early there may be a complaint of fatigue and of soreness merely, and after exercise, of positive pain referable to the hip, and later on, to the knee. This pain is reflex in character and liable to exacerbations. The anterior crural, sciatic and obturator nerves send twigs to the joint and peripheral branches to the limb below, as to the knee, and the inner side of the thigh and leg. This fact is interesting, namely, that certain short branches of a nerve being irritated, pain is experienced in the long peripheral branches, and unless borne in mind will be misleading as to the seat of the trouble. I am constantly seeing mistakes of this character made by the physician and friends. In other disorders we have illustration of this same peculiarity of nerve irritation. In Pott's disease the pain is experienced in the front of the body, remote from the spinal lesion; so in stone in the bladder, such disquietude is experienced in the end of the penis that the patient would ever be pulling it.

Finding no difference in the contours of the two knees would help to settle the suspicion of affection of that joint. Later on a paroxysmal pain occurring at night is symptomatic of bone lesion and called the ostitic cry. The same is found in bone involvement of other large joints or of the spine. In my experience it is of frequent occurrence that cases are brought in for knee-joint affection or rheumatism of the thigh and leg that prove to be hip disease. The chagrin of the family physician is often great when told of his error. A neuralgic hereditary tendency on the part of some children may render them more sensitive, and account for their suffering more in hip disease than others who have no such idiosyncracy.

3rd. *Of Altered Position.*—Very early the limb is slightly flexed; a little later, abducted and rotated outwards; thus the foot is thrown in advance or a little forward of the body. Some carefully made experiments of injecting the synovial cavity of the hip-joint with fluid, in which the line of the femur was made to take a direction forwards and outwards, with rotation, would seem to indicate that, when in joint disease the limb assumes such position, therefore, there must be fluid in the joint, synovial or purulent. Such has been the specious reasoning of the past, but more correct pathology now shows that this position is assumed as one of greater comfort, whereby the ligaments are more thoroughly relaxed. As you know, Mr. President, sit at ease the thighs are flexed, the knees separated and the feet turned outwards, *i. e.*, there is flexion, abduction and rotation, naturally assumed as a position of greater comfort. This position of the limb affects the character of the locomotion. In order to get the foot to the ground the body is bent forward and inclined outwards, this is accomplished through curving the lumbar spine. If the limb will not conform to the body the body must conform to the limb, like the story of the mountain and Mohammed.

The pelvis is tilted downwards on the affected side, thus producing an apparent lengthening of the limb.

4th. *Loss of Motion in the Joint.*—The patient cannot move his thigh, except limitedly, and there is impairment of passive motion, a symptom of the greater value. The examination must be very gentle and critical. If it is roughly made all the muscles will contract to protect the joint, and this contraction will be mistaken for rigidity from disease. The patient lying on his back, the *sound* limb should be first seized and put through the motions of flexion, extension and rotation, for two reasons: 1st. To get the confidence of the patient. 2nd. To refresh the memory as to the possible movements of the limb. Then the suspected limb is seized and flexed to its utmost without force; then extended, and just here comes in the test so insisted upon by recent authors, the *experimentum crucis*, namely, that in extreme extension with the popliteus striking the table, the lumbar spine will be flexed, or bowed forward, if disease is present; then as the limb is flexed, the spine again will lie flat on the table. This is due to the contraction of the psoas and iliacus. Then, with the limb flexed to an angle of 120 degrees with the trunk, the thigh should be rotated, and this rotation will be limited if the joint is affected. If the rotation is unimpaired, almost to a certainity no disease exists. We may state the case axiomatically, that if hip disease is present, impairment or limitation of motion is certain. In these examinations do not use an anesthetic, for the consequent relaxation of the muscles would nullify the test and render nought the otherwise clear symptoms. I can well remember the day when to diagnose a

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case of hip disease chloroform was given and the joint freely moved, to elicit grating of the suspected eroded joint surfaces, an exceedingly harmful and unnecessary proceeding. Tact must be used, the confidence of the little patient gotten. Finding you are not to hurt him, he will place himself in your hands, and the delicate tests may be satisfactorily made. So often in cases brought to me for consultation the child cries, and the mother apologetically says: "Dolly has become afraid of doctors" Shame! as Shakespeare has it, use all gently.

5th. I have found *wasting of the limb* a very constant sign, and with it too a flabbiness of the muscles. The circumference of the two calves should be compared, and then the thighs, taking a point on each equidistant from the upper edge of the patella (the markings are best made with an aline pencil)—and thirdly the flattening of the glutei and obliteration of the lower gluteal or natal fold. Great emphasis was placed by the older writers on this flatness of the natis, and so we were taught, but I do not give such significance to it. While it may be due measurably to wasting of the gluteal muscles from reflex nervous irritation, it is largely affected by position of the limb, and thus a secondary sign. This wasting of the limb, like the pain, is due to nervous reflex, and is quite constant. I do not assert that wasting of the limb is never caused by other affections, for in ankle disease, infantile paralysis, in flat foot, congenital dislocation of the hip, diminution in the size of the limb results, but it is present in hip disease and is a most important and ever-present sign. When marked and rapid, grave bone involvement may be suspected; when slight, that the affection is not yet severe. Would you suggest that the wasting is due to non-use of the limb? It is too marked and too rapid for that.

6th. *Of the Swelling.*—This perhaps is the least important sign in the early stage of the affection, possibly because so difficult to determine on account of the depth of the joint, the hip being covered by large muscles—different in the case of the knee, for example, it lying superficial. However, when present, may be recognized in front of the capsule or behind the trochanter, or by a brawny thickening about the joint. Best detected by grasping the part with the thumb in front and the fingers behind the trochanter, or *vice versa.* Remember, I am speaking here only of the early stage; later on, formation of pus causes marked swelling, easily detected.

Lastly, in regard to *sensitiveness of the joint*, elicited by some surgeons by striking upon the sole of the foot or knee,—a very unreliable procedure, because the muscles being put on guard, very little or none of the concussion will affect the joint surfaces, unless great force is used, which might even cause complaint if employed on the sound side. Again, in the early bone trouble the joint surfaces are not involved, and therefore, not sensitive. Recently I heard at a medical society a prominent physician relate a case of diagnosis and cure of hip-joint disease. He suspected such a trouble, placed his patient on the floor, and pounded on the sole of the foot; a cry resulting, hip disease was certain. Recumbency and weight to limb effected a cure in a few weeks. *Mirabile dictu!*

If we *should* desire to elicit sensitiveness of the joint, such being present, a better plan would be to use the femur as a lever, one hand under its upper third as a fulcrum, the other on the front of the knee pressing it back as the power, and the head of the bone forced against the ascetabulum as the weight. This can be done gently without exciting antagonism of the muscles or doing injury to the joint.

Of the Family History. If tendency to tubercle or struma exist, all the more would opinion incline to arthritic bone involvement. You perceive I am a disciple to the scrofulous origin of the affection, either congenital or developed *de novo* from some acute disorder recently experienced by the child. Thus I have rapidly individualized the signs of early *morbus coxæ.* When grouped, they furnish such unmistakable evidence of the affection that he who runs may read. Not all the symptoms may equally be present, one or more may be strongly marked, and others in abeyance. But I beg of you that with the limp and pain and impaired motion and wasting present, don't pooh-pooh the fears of the anxious mother, and say "growing pains," "rheumatism," "child will grow out of it." If the positive signs, on the one hand, and exclusive reasoning on the other leave the case still in doubt, keep it well under observation, You may already have had the alarm of the falling barometer, though the storm is yet distant.

In closing, you may desire to ask: "If hip disease, what then? What is to be done?" Even though time permitted, it is not my intention at present to reply, except in one word: Quiet. Keep the joint at rest, immobilize it.

Discussion.—Dr. Edw. Boeck dwelt upon rigidity of the affected limb as an early symptom. Dr. Jacob Geiger did not think struma the prime cause. The disease begins in the cartilage and synovial membrane rather than in the bone. Immobilization, without drugs, often cured. Early diagnosis meant early cure. Dr. Young called attention to pain at night during sleep Thought it well to make sound leg higher than the diseased one, so that the weight of the latter would make extension. Dr. Hurt thought that cases were decided by a traumatic cause acting on a strumous subject. Dr. Halley, in autopsies, had found the

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bone always diseased, and but partial destruction of the cartilage and synovial membrane. Believed disease began in bone. The granulations appeared to him to be of tubercular type Dr. Griffith called attention to Gibney's definition of hip-joint disease, "tubercular osteitis of the hip-joint." Dr. J. W. Heddens dwelt upon the importance of an early symptom, namely, rotation of the leg outwards. This is an effort of nature to cure. The iliacus muscle draws the head of the bone out of the socket and thus relieves friction and pain. Rotation of the limb inwards at once causes pain. Local treatment could be summed up as rotation outwards, extension, and fixation. Dr. Steele had reserved the theme of treatment for another occasion. He believed in the old teaching of Gross as to the causative influence of struma. *Quietness* to the joint, no matter how obtained, was the point. Excision can ordinarily be avoided.—*Transactions of the Medical Association of the State of Missouri.*

MEDICAL NOTES.

Pilocarpine is said to be of distinct advantage in *Menière's disease*, if given early. It may also be used with success in aborting an attack of ague, if given at the very outset.

In giving *quinine*, it is well to combine with dilute hydrobromic acid; it renders the disagreeable cerebral effects much less, does not interfere with its action, and renders it more soluble, while it really adds to its efficacy.

Prof. Bartholow states, gelseminum will often do more good in *irritable bladder* than any other remedy. It is especially adapted to those women of hysterical type, troubled by irritability at the neck of the bladder, calling for constant urination.

Prof. Bartholow insists on the value of ipecacuanha in *dysentery*, especially of the puerperal state. The patient should, however, be in ordinary good condition, and the initial dose should be at least ten grains, but a scruple is better. Push the remedy, in spite of emesis, until the appearance of the characteristic ipecac. stools.

The following was prescribed, at a recent clinic for *epileptiform seizures*, due to some coarse lesion in the brain, occurring in a child 13 years old:—

℞—Hydrarg. chloridi corrosiv., . . gr. $\frac{1}{10}$.
Ext. ergotæ (aquos), ... gr. ij.
Ft. pil.
Sig.—Morning and evening.

A case of obstinate *secondary syphilis* was treated as follows by Prof. Gross:—

℞—Hydrarg. chlor. corros., . . gr. $\frac{1}{10}$
Cocainæ, ... gr $\frac{1}{2}$
Aquæ (tepid), ... gtt. xv. M.
Sig.—Inject subcutaneously every other day.

Every night, on going to bed, resort to fumigation, using about ʒ ss calomel each sitting. Give quinine, iron, milk punch and best possible diet.

Prof. Da Costa presents the following as a strong point in the differential diagnosis of *chronic cerebral softening* and nervous exhaustion, or *neurasthenia*: In the latter, for a short period of, perhaps, a few minutes, the patient's mind will remain clear, and he is capable of mental effort, soon, however, to lapse again into his indifferent stupor. This alone, with the facts and history of the patient, will do much to establish a diagnosis when in doubt. In the latter, also, the headache is comparatively slight, while in the former it is a marked feature of the case.

For local applications in *gonorrheal epididymitis*, to be used after the more acute inflammatory process has subsided, Prof. Gross recommends the following:—

℞—Extract belladonnæ, . . ʒ ij.
Glycerini, ... f ʒ ss.
Aquæ, ... f ʒ j. M.
Sig.—Smear on inflamed part.

Or—

℞—Iodoformi, ... ʒ j.
Unguent. petrolati, . . . ʒ iij. M.

For the *hemorrhage of fibroids* of the uterus Prof. Parvin advised, in their order, the following: Ergot, hydrastis canadensis, infusion of gossypium hot water injections, dilatation of os uteri, astringent tampons to uterine cavity, incising endometrium over the tumor, scraping and curetting the mucous membrane, application of persulphate of iron, removal of tumor by vagina, by gastro-myotomy or gastro-hysterectomy, or anticipate the menopause by oöphorectomy; the last, however, is not always certain in its results.—*Coll. and Clin. Rec.*

THE ROCKY MOUNTAINS FOR RECREATION.—Why do so few of our young men go West for recreation? There is no land where nature recreates a man as she does there. You literally renew your youth. The climate is invigorating beyond words. For nervously exhausted men, for weary brains there is simply nothing to touch it. I have gone to the (Rocky) mountains thoroughly fagged out, unable to sleep well or eat well—life a burden and work an impending horror. In a fortnight I have been eating as many meals a day as I could prevail on my men to cook, and have been glad to fill up chance spaces in my internal economy with raw bacon. Yes, many a time after a monumental dinner, when we have gone into camp at five in the afternoon, have I eaten with relish that most lasting of all provisions, a piece of raw bacon, before turning in. It is true some

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at first find the rarified atmosphere of the mountains trying to chest or heart, and many also complain of loss of appetite and loss of sleep; but if the man is sound in limb and lung, and if he does not over-do it or over-exert himself at the very beginning, but does take regular exercise, in ten days or so all life seems to awaken within him; he may not sleep so long or so heavily, for he has probably camped at an altitude of eight or nine thousand feet (excellent camping-places are sometimes found at a height of ten thousand feet or over), and he does not need as much sleep as if he were at sea-level He may puff and blow like a grampus as he faces a moderate hill; for he has scarcely realized yet that the atmosphere is so rare that he must boil his potatoes (if he is lucky enough to have any) for at least two hours, and he will do better if he boil them all the morning, and that he cannot by twenty-four hours' boiling make beans soft enough to feed to his horse. But he is growing younger, not older. The world of cark and care seems very far away, walled out by the heavy mists that roll up from the plains. What a fool he was to bother his soul as he did with a thousand useless things.—W. S. Rainsford, D.D., in *Scribner's Magazine*.

THIERSCH'S METHOD OF SKIN-GRAFTING.—Dr. Mynter reports this method, as proposed by Thiersch, of Leipzig, and as he has used it in the Buffalo (N.Y.) General Hospital, as follows:

The granulations are removed by the aid of a sharp spoon down to the underlying firmer tissues, and the rather copious bleeding stopped by pressure with compresses dipped in a solution of chloride of sodium, 0.6 per cent. The bleeding stops generally in the course of five to ten minutes, The flaps are now cut with a sharp razor, generally from the outer surface of the humerus, and then transferred directly on the shining surface of the wound, deprived of its granulations. The flaps are five to ten centimetres long, one or two centimetres broad, and contain, even if microscopically thin, the whole papillary layer and a part of the underlying stroma.

The flaps are completely unravelled by aid of two probes, and then firmly pressed against the surface by aid of a soft sponge dipped in the same solution of chloride of sodium. The transplanted wound is covered with a piece of protective dipped in the salt solution and an antiseptic bandage applied over it, which is not disturbed for eight days; the superficial wounds produced by the razor healing in eight days under iodoform bandages. If the wound be completely covered with flaps it will be healed in about eight days; but in very large ulcerations especially after severe burns, it is almost impossible to get skin enough from the patient himself, and one will then after eight days have the opportunity of seeing not only the growth of the flaps themselves, but also the stimulating effect on the border of the wound, which is quite wonderful to observe. It is astonishing to see how quickly the citcatrization progresses in those large ulcerations from the border and the numerous island formed by the new flaps.—*Buffalo Med. Press.*

HYDROCELE IN THE FEMALE.—The *New York Medical Journal* has recently published a report of three cases of this rare condition, read before the New York Clinical Society by Dr. Wright. He notes that hydrocele in women has been ignored by most surgical writers till within the last few years; not forty cases have been reported. It is liable to be mistaken for irreducible hernia, and, when inflamed, for strangulated hernia. In doubtful cases the diagnosis may easily be settled by the hypodermic needle. In the first case there was a fluctuating tumor, the size of a pigeon's egg, just above the inner half of Poupart's ligament, on the left side; it had existed for several years; there was no impulse and it was irreducible. It was aspirated twice, straw-colored serum being withdrawn. On the second occasion, the inside of the sac was scarified with the point of the the needle; the sac inflamed and was completely obliterated six months later. The patient had borne four children. In the second case there was a soft fluctuating tumor the size of a pigeon's egg in the right inguinal region, just above the middle of Poupart's ligament; it seemed to consist of a large superficial and a smaller and deeper sac. There was no impulse, and the tumor was reported as irreducible, but the patient had noticed it present occasionally ever since the birth of her first child, and she used to push it back with her hand. Three weeks before examination, while lifting a child, the tumor described by Dr. Wright appeared and she could not reduce it. Colic, flatulence and constipation came on, and the tumor was tender. On November 15th, 1883, after ice had been applied to the swelling, it was aspirated. The two cysts required a separate application of the needle, clear yellow serum was withdrawn and the small sac had to be aspirated again three days later. The tumors had never refilled when the patient was seen three years later. The third case was in the practice of Dr. Quimby; the patient was a single woman, aged forty-two. A fluctuating tumor, about as large as the last joint of the thumb, was found just above and parallel to Poupart's ligament on the right side. Six or eight years before the patient had, it appeared, been operated upon for hernia of the same side. The tumor had existed "for some time," and caused a dragging pain. The patient used to reduce it herself. It was aspirated seven times in nine days and then ceased to fill any more.—*British Med. Journal.*

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TREATMENT OF FRACTURED OLECRANON.—Reginald Horsley, M.B., C.M.Edin., writes: During my term as house-surgeon in the Royal Infirmary, Edinburgh, Prof. Annandale operated in three cases for united fracture of the olecranon after ordinary treatment had been tried and failed. The operation was thus performed under strict antiseptic precautions, the warm douche of corrosive sublimate, 1 in 2,000 being used. A straight incision, similar to that for excision of the elbow-joint, having been made, the fragment of the process was found, scraped, and sutured to the end of the ulna, which was also freshened. Strong catgut was used in the case of a child, silver wire in the other two cases. After operation the limb was laid on a straight, padded, anterior splint, and fixed in position by bandages. In this position it was left undisturbed for three weeks, when rubbing and partial movement was begun, the arm being each day replaced upon the splint. A fortnight later movement was voluntarily performed with sufficient ease, the splint was removed and the patients left the Infirmary. When they returned a little later to "show themselves," movement was perfect and the joint free from stiffness. In one case re-fracture occurred, and the operation was repeated. Owing probably to greater disorganization of the parts, the wound suppurated after the operation. It was, therefore, dressed daily, the arm being carefuly supported meanwhile, and bandaged to the splint during the intervals. The final result of the case was as stated. I hope this rough statement will be of use to "A Member."—*British Med. Journal.*

CORROSIVE SUBLIMATE IN THE TREATMENT OF DIPHTHERIA.—Stumpf has used the following prescription, with excellent results:

R.—Sublimat., ...	gr. 3.
Aq. destil., ...	℥ 5¼
Aq. menth., ...	℥ 1

The cavity of the throat was sprayed with this every three hours.

Thirty-one cases were so treated, with but one death. No ill effects were observed from the treatment excepting salivation, which was not severe, and persisted only three or four days.

The temperature fell under the treatment.

As to the amount of fluid which could be safely used, one drachm of the fluid is enough for one application. When a solution of 1 to 2,000 was used fifty inhalations would give a maximum dose, of one and a half grains of sublimate for an adult.

In children older than six years, 1 to 1,000 solution was used; for children between two and six years, 1 to 2,000; in children under two years of age, 1 to 4,000 or 1 to 3,000.

Inhalations with a hand-spray are best given for the first five times, hourly; then for five times ever two hours; then every three hours until the symptoms are mitigated.—*Therapeutische Monatshifte.*

HISTORICAL SKETCH OF ST. BARTHOLOMEW'S HOSPITAL.—In 1102 a certain Master Rahere, who had followed the profitable, but not wholly respectable, trade of minstrel during the reign of William Rufus, and had attracted the favorable notice of William's successor, Henry I., found himself in possession of what was for those days a tolerably large sum of money. This money he resolved to use—like many other gay gentlemen of his time—in atoning by some good work for the little irregularities of his earlier years. Accordingly he founded a priory in Smithfield, the ancient chapel of which still exists as the parish Church of St. Bartholomew the Less. Nor did his zeal stop there. Hardly was the priory built when its founder obtained from King Henry the grant of "a certayne peece of waste lande nigh thereunto," upon which he built and endowed "to the honor and prayse of the blessed Sanct Bartholomew, a hospital for a master, brethren and systers and for the good entertaynement of all poor folk and such as bene sick of divers diseases, until such time as they be whole and sound agayne." Thus established in the heart of London, the new hospital did abundance of good work, and was manfully helped in doing it by the honest burghers of the city. In process of time the priory was incorporated with it, and in 1547 the boy king, Edward VI., made over the entire building to the citizens of London as a public hospital, in which capacity it probably found plenty to do in an age when every man had a weapon and what Paddy would call "a dacent notion of usin' it," and when street fights, with three or four lives lost on either side, were matters of almost daily occurrence. The great fire of 1666, which swept away so many priceless monuments of London's past, reverenced the famous hospital, but its ancient walls gradually crumbled before the slower assaults of time, and in 1729 the whole edifice was rebuilt in the modern form, which it still retains. In 1782 the management of St. Bartholomew's was united with that of Bethlehem, St. Thomas's, Christ's Hospital and Bridewell, and the group thus formed recived the title of "The Five Royal Hospitals," the superintendance of which was intrusted to the "pious care of the Lord Mayor of London."—*N. Y. Times.*

TALISMANIC BELTS.—About two years ago a physician of Saint-Germain, having been called to a woman in the last stages of consumption, found her body tightly girt with a belt or band made of cords (the *ceinture de Saint-François*). These *ceintures* are believed by the superstitious to have the power to preserve those who wear them from hell. A *ceinture bénie*, supposed to facilitate

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parturition, is given out from one of the principal convent schools in Brittany. It bears the painted inscription, "*Notre-Dame de Délivrance, protégez-nous.*" Before it is sent out, great care is taken to touch it with a fragment of the *ceinture* that is reputed to have belonged to the Holy Virgin, the authenticity of which piece of material is guaranteed by numerous parchments.—*N. Y. Medical Journal.*

AN INCIDENT AT AN ANTIVIVISECTION MEETING. The Paris correspondent of the *New York Times* tells of an amusing occurrence at a recent meeting of an antivivisection society held in that city. One of the speakers, a woman, having inveighed particularly against medical students, was asked by a student, who happened to be present, why she wore a bird in her hat—"a poor little robin" that "had been slaughtered simply to supply a vain woman with a foolish ornament." The account goes on to say that the lady was cut short in her eloquence, and could only stammer forth the poor protest that she hadn't done the bloody deed herself.—*N. Y. Med. Journal.*

SUCCUS ALTERANS IN RHEUMATISM AND SYPHILIS.—We are reliably informed that the preparation Succus Alterans (McDade) is becoming a very popular remedy with the profession, and being very extensively prescribed in general practice as an alterative tonic, aside from its use in syphilitic diseases. The good results from its use in treatment of rheumatism, of chronic character especially, is worthy of consideration. The remedy is certainly growing in favor, and as no great claims have ever been made for it, but simply placed upon its own merit, we think it could possess no higher recommendation.—*Indiana Medical Journal.*

"ODE TO BACILLUS."

Oh, powerful Bacillus,
With wonder how you fill us,
Every day!
While medical detectives,
With powerful objectives,
Watch you play;

In epidemic glanders,
In certain forms of "janders,"
You delight.
E'en to the fifteenth culture,
Voracious as a vulture,
You can bite.

Koch and Spina growing splenic,
O'er your powerful septicemic,
Rant and roar.
Schmidt says, when pus grows rotten,
Only then you are begotten,
Not before.

In lung tuberculosis,
In skin necrobioisis,
How you squirm.
While gonorrheal burning
Is caused by sporules turning,
Some affirm.

'Tis said a crypto-coccus
Will very often choke us,
If we fail
To drop the acid phenic—
Which is antisepticemic—
On its tail.

Friar says in fever, yellow,
He finds a little fellow
Breeding pest.
Gregg swears, do what he will he
Sees nothing but fibrilli
By his test.

In atmosphere nephritic,
In poison diphtheritic,
How you revel!
In earth and air and ocean,
You keep disease in motion
Like a devil.

But, Bacillus, O, Bacillus,
You try in vain to kill us,
Yet we thrive.
And though you try to blind us,
Yet next year I hope you'll find us
Quite alive.

—*Journal of Reconstructives.*

WASHINGTON—THE MEDICAL CONGRESS.

Oh, city of broad streets and ample ways,
Whose stately avenues attract the eye;
Not here on frowning battlements we gaze,
Awing with martial front the passer by;
Yet here, too, has been heard the cry, "To arms!"
And hearts have wildly throbbed at war's alarms!

What if the din of Commerce pass thee by?
Fair city, with thy Founder's deathless name!
While lifts thy Capitol its dome on high,
What rival city shall eclipse thy fame!
Mistress of States—of central pow'r the seat,
Where all a mighty nation's pulses beat!

And now the doctors of the world are here,
Not arm'd with lancets, as to meet a foe,
But each presenting in his chosen sphere,
A fragment of the truth he best can show;
Gleanings from distant fields with toil and care,
Or happy inspirations—all too rare!

Or trotting out some hobby, with slow pace,
(I had one of my own, and ought to know),
Or, curious, studying the foreign face,
Or, musing, idly sauntering to and fro;
Or starting from brief sleep with vivid sleep,
Born of the garden party and ice cream!

Thanks, hospitable friends, for kindness shown,
Too good to last, these pleasant busy days,
The winged hours have all too quickly flown,
And home we hasten by our diff'rent ways:
Meeting as strangers, parting now as friends,
Adieu fair city! for the Congress ends.

Lindsay, Ont. THOMAS W. POOLE, M.D.

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THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

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MEDICAL SPECIALISTS.

The question of medical specialism is one of increasing interest. The range of medical knowledge and practice has now become so wide as to have outgrown individual mental capacity, however generously endowed by nature, or cultivated by education and experience. No man can be, at the same time, the foremost physician and foremost surgeon of the day. No one can be the first oculist of his time, and also the first gynecologist. The fact that the field is too extensive for individual careful cultivation is patent to all. The admission of this opens the door to specialists, and the question resolves itself into the possibility of a man's ability to do a special work more successfully than can one who attempts to be more or less perfect in all. The day for sneering at the specialist is gone by; his advent is past, and his stay is assured, therefore, the most rational course to adopt is to define his qualifications and sphere of action, and allot him his true status as a necessary member of the profession.

The practice of specialties has been brought into much disrepute by quacks and humbugs. Recognizing the reasonableness of specialism, and the readiness of the public to attribute extraordinary powers to the specialist, many persons have not been slow to plume themselves in the garb of the specialist without possessing the first qualification for the work. The true specialist is no embryonic product, but a full-grown man, a giant in fact; for unless he be far in advance of his fellows in his chosen field, he is no specialist. Medical specialism is unique, and differs widely from specialism in other professions and callings. The medical specialist must needs qualify himself by a careful study of the whole range of medical science. The human mechanism is not made up of detached pieces fitted together like the wheels of a clock, but is rather an inseparable mysterious whole, each part in direct relation, communication and sympathy with all the other parts. It naturally follows, therefore, that the specialist must be acquainted, not with a part merely, but with the whole organization. Not only so, but he must also be acquainted with the pathological conditions liable to affect the various parts, and the symptoms, local and general, to which they give rise. This involves a vast amount of preparatory labor. The competent specialist, however, is not yet equipped for his work. Specialism can never have a spontaneous evolution. It can never properly exist, except as the outcome of general experience in the diagnosis and treatment of diseases. When a general practitioner finds that he has special tastes and adaptations, let him cultivate these, and if successful beyond his neighbors, his right to be regarded as a specialist will be recognized and undisputed.

The following cases illustrate how important it is to the specialist to be well grounded in general practice. A leading physician went to New York to obtain relief from misty and cloudy vision—"the atmosphere appearing as though a smouldering fire were near." The gentleman first consulted was not a specialist, and apparently, without inquiring into the case, took him to a distinguished oculist. The patient was advised to go home and confine himself in a darkened room, take mercury and live on low diet. He gradually grew worse. His urine was at last examined and revealed albumen and tube casts. He died in less than two months. Nephritic amaurosis was mistaken by the specialist for acute retinal congestion. Another medical man suffered similarly. A noted oculist assured him that he had post-polar cataract. He was advised to postpone operation until vision had become much more imperfect, as it most certainly would. This gentleman gave his eyes needed rest, lived more generously, and exercised in the open air. A few months of this treatment removed his cataract, and completely restored his sight.

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Here eye-strain and imperfect nutrition were mistaken for cataract by a noted specialist. Still another medical man, run down by fever and other causes, suffered nervous troubles, for which he consulted a leading neuro-pathologist. The thermo-cautery was applied to his occiput for congestion of the brain; he was ordered mercury and iodide of potassium before meals, and ergot and bromide of sodium after meals. His condition did not improve, and, growing impatient, he quit medicine and took to the country where his troubles speedily vanished. The specialist mistook blood poverty for grave cerebral disease. The following case is more remarkable for its negative side, as regards the specialist consulted. A medical gentleman of our acquaintance, whose wife had suffered from uterine troubles for some months, decided to consult one of the most distinguished gynecologists on this continent. The lady had been troubled with irregular and excessive menstruation, unhealthy discharges, etc. The cervix was greatly enlarged and nodulated. The uterus also was firm and enlarged. Malignant disease was apprehended. The specialist made a careful examination. He was unable to make a definite diagnosis, but leaned to the belief that the disease was non-malignant. He could not say whether pregnancy existed or not. Four months after the lady was delivered of a healthy child, and the distortion of the cervix was afterwards ascertained to be due to laceration.

These instances of error are not referred to as a bill of indictment against specialism; on the contrary, they offer a strong plea in its favor. If the well trained and experienced specialist is beaten on his own chosen ground, what must be the diagnostic record of the man who strives to cover the whole ground? We also learn from the above cases that specialism has its own peculiar dangers. Moving within a given circle, or along a certain groove is not unattended with danger. In obedience to a well-known mental law, the tendency is to widen the circle and embrace within its circumference matter foreign to it. That the greatest amount of good may be done to the greatest number, it is manifestly in the interest of suffering humanity that specialism should have a leading place, and that specialists should rise to a higher plane in the profession than they have hitherto done.

THE USE OF ALCOHOL IN DIPHTHERIA.

The rule usually given by lecturers in medicine as to the use of alcohol in various diseases is, that its action should be watched, and that if the pulse is found to become slower and fuller, the temperature lower and the tongue more moist, continue to give it; but if on the contrary the pulse and temperature are not favorably affected, or the tongue shows no sign of an improvement in the condition of the mucous membrane of the alimentary tract, it should be discontinued. This is a good general rule, and one which most medical men follow. In one dread disease, however, namely, diphtheria, it is to be doubted whether it is ever contra-indicated. Here we have the system profoundly affected by a specific poison, and antiseptic treatment should be followed by the best results. As to any specific antiseptic for the germs of diphtheria, it yet remains to be discovered, as is witnessed by the countless methods of treatment we see vaunted by various writers in all countries. Since the introduction of the potash treatment some five and twenty years ago, nearly every important drug in the Pharmacopœia has been used, and with alleged success, for the amelioration of the symptoms and cure of the disease, and the results obtained, as shown by statistics, vary greatly, owing no doubt to the varying circumstances of environment, the virulence of the epidemic, the previous condition of the patient, etc. It is doubtful whether any drug, save tinct. fer. mur., receives the same recognition in the treatment of diphtheria that alcohol does. It is an antiseptic of high value, as well as a general stimulant, and is, therefore, indicated both on account of its specific action upon the germs of the disease, which have found their way into the blood, and for the purpose of tiding the patient over a very difficult place. Some of the oldest, most thoughful and most successful of our practitioners believe, that the alcohol treatment alone would be perhaps the best and safest which can be undertaken. Under its influence the patient improves as to the worst symptoms, the membrane gradually disappears, the temperature is lowered, the pulse is slowed, and a sense of well-being is given to the patient, which places him in the best possible position for recovery.

But to get the full benefit of this drug, it must

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be given in *large quantities*. The best method of administering it is to prescribe small and repeated doses, to be given by the clock. It is best given diluted with water, and to the amount which even a child of two or three years will take with great advantage, is astonishing. Many give it in milk, by which means nourishment is supplied at the same time, a matter of great importance; but whatever method is adopted, the great point to be remembered is to give it freely. Dr. Richardson, the late president of the Ontario Medical Association, states that he has known a child of two years suffering with diphtheria, take a bottle of port wine in 48 hours with the happiest results, and that he has the fullest confidence in the action of alcohol, not only in diphtheria, but in all its congeners, depending upon the presence of specific germs in the blood. Potter recommends it as a local antiseptic, diluted with equal parts of water, and applied as a spray every half hour. The editor of the N. Y. *Medical Times* says:—"Alcohol, we make bold to say, is the prince of antiseptics, and the most perfect and reliable medicine of which we have any knowledge in diphtheria. Diluted with equal parts of water, and given in small and repeated doses, the malignant symptoms of this most fatal malady soon disappear and convalescence becomes assured." It is said to be an excellent prophylactic, used as a gargle three or four times a day.

THE EARLY REMOVAL OF TUMORS.

Few individuals relish the idea of having a new growth removed as soon as discovered, and when it is, perhaps, causing no pain or inconvenience beyond some slight mental discomfort. While many persons, and especially women, are ever on the look-out for cancer, and frequently imagine their days are numbered on the discovery of a lump in the breast, or lip, yet they will, in the majority of cases, postpone operative procedure as long as possible, and frequently, in case the neoplasm is malignant, till such procedure can not be hoped to afford more than a short margin of life to the unfortunate sufferer. So long as life is bearable they will press the cause of all their woes to their bosom or lips, as the case may be, notwithstanding the advice of friends and medical attendants.

Perhaps the profession does not sufficiently insist on the immediate removal of all new growths that are found in those under their care. Surely such a rule could be only productive of good. It is not always possible to make a positive diagnosis as to the malignant or benign character of a tumor, but what does that matter? All tumors are unsightly, they are frequently obstructive to the ordinary movements and occupations of life, and we may say are always the cause of more or less mental disturbance and worry. As was remarked by a young woman who had a benign tumor removed from her breast, she "did not draw a breath of pleasure for months" before its removal. In any case, then, the early removal of new growths seems to be indicated, but especially will the patient be benefited by such action when malignant disease has been established, for it is certain that, in many cases, the early removal of even malignant growths is followed by years of non-recurrence; perfect health, and comparative mental ease being enjoyed during those years, a happy consummation not to be hoped for if the remedial measure be postponed till the latest possible date.

RASH FROM THE ADMINISTRATION OF SALICYLATE OF SODIUM.

This remedy is among those which produce cutaneous disturbance. Twenty grain doses of the drug every six hours, administered for acute rheumatism, produced, after a few days, a petechial eruption accompanied by distressing itching. The neck, breast and arms suffered most, but no part of the body, except the scalp, was entirely free from it. Neither the conjunctivæ nor throat were affected. Upon cessation of the remedy, the rash and itching disappeared. There was some shedding of the skin in flakes. Morrow mentions cases of erythematous, urticarial, petechial and edematous condition of the skin from the use of the soda salt, as also from the salicylic acid. He says the erythematous eruption bears a striking resemblance to that of antipyrine, belladonna, chloral, etc., and he says the pyrexia, sweating, edema, with which the erythema is usually accompanied, are vaso-motor phenomena, experiments upon animals having shown that the salicylates act "primarily and principally upon the vaso-motor centres." In

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the case alluded to above, carbolic oil (1 in 30) relieved, to a great extent, the intolerable irritation and itching which was the most disagreeable manifestation of the action of the drug.

THE PUPIL IN CHLOROFORM ANESTHESIA.—In an exhaustive article in the *British Med. Journal*, on the above subject, Dr. Henry J. Neilson, has formulated his conclusions as follows:

1. The effects produced by chloroform on the pupil are at first dilatation, varying in degree and duration, then contraction as the narcosis becomes profound, and dilatation again as the sensibility is returning. If the administration be still continued with the pupil strongly contracted and motionless, the pupil will also dilate, but in this case more suddenly and completely, and will be coincident with a state from which it will be difficult or impossible to resuscitate the patient. This latter is the dilatation of asphyxia. 2. So long as the pupil dilates in response to excitation by pinching, etc., the patient is not sufficiently narcotized for the operation to be proceeded with, unless the operation is slight and does not require complete anesthesia. 3. When the pupil becomes strongly contracted and immobile, no more chloroform should be given until it begins to dilate again. If, then, further anesthesia be required, a little more chloroform should be given until the pupil again contracts. 4. The occurrence of sickness causes dilatation similar to, but more sudden than that which happens when sensibility is returning, and the efforts of vomiting have the effect of arousing the patient. The watching of the respiration and the pulse, which are doubtless the best indications of the effect produced on the individual by chloroform, and, therefore, of vital importance for safe administration, does not, in many cases, furnish evidence of the state of sensibility, in regard to which he regards the state of the pupil to be of the greatest assistance. The sign usually relied on, namely the insensibility of the conjunctiva, is by no means a satisfactory test, for in many cases conjunctival anesthesia is established long before the patient can be said to be under the influence of the drug. By observing the pupil, the administrator can tell at once when the effect of the drug is on the wane, because the pupil then begins to dilate slowly. Noticing this he can, by the administration of a few drops more chloroform until the pupil again contracts, prevent the occurrence of struggling and interruption of the operation. In this way he can keep the patient in a state most suitable for the satisfactory performance of the operation without narcotizing him more than is necessary.

THE MUTUAL RELATIONS BETWEEN PHYSICIAN AND PHARMACIST.—The *Pharmaceutical Era*, of Detroit, says that the importance of the above to both professions has led them to offer a prize of *fifty dollars* in gold for the best essay on the subject. The essay should endeavor to show how the ideal harmonious relations between physicians and pharmacists, both as individuals and as represented in their respective organizations, may be best realized, and all competitors must be governed by the following conditions:—

1. Anyone interested in the subject may compete. 2. The essay must not exceed 2,000 words in length and must reach us previous to Jauuary 1st, 1888. 3. The MSS. must be free from the author's name, address, or other marks of identification, and we recommend typewriter copy wherever practicable. 4. The author's name and address must be enclosed with the manuscript on separate paper. 5. All the essays submitted in competition for the prize are to be the property of the *Pharmaceutical Era*, and to be published or not at the discretion of the editor, but names of authors will be suppressed if requested. 6. A committee consisting of five representative men chosen from the medical and pharmaceutical professions, to whom the essays shall be submitted anonymously, shall award the prize, and the names of the committee will be announced with their decision. Address, D. O. Haynes & Co., box 583 Detroit, Mich.

TREATMENT OF TYPHOID BY COLD WATER.—Dr. Austin Flint's conclusions in this matter are borne out, says Dr. Allen (*Med. Times*), by the results in 13 cases which have occurred in his practice. They are as follows:—1. That by the use of cold water externally in cases of typhoid fever the temperature of the body may, after a variable time of its continuance, be reduced to 102°, or even lower. 2. After a period, varying very much in different cases, and also at different times in the

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same case, the temperature rises as high or higher than before the reduction. 3. Upon repeating the employment of cold as often as the axillary temperature exceeds 103°, the number of repetitions necessary is extremely variable in different cases. 4. The sponge-bath, with the wet sheet and sprinkling, may be employed to the exclusion of the bath-tub in the treatment of typhoid fever. 5. These modes of employing cold water may be continued sufficiently long for the reduction of the temperature to 102°, or even lower, and repeated as often as may be required, without fear or injury. And the study of these cases furnishes no ground for supposing that a liability to complications or accidents is thereby increased; and that the reduction of the temperature by these modes, as often as it rises above 103°, improves the condition of the patient. 6. The results of the analysis of those cases where cold has been faithfully used, afford us encouragement to employ it with the expectation of diminishing the severity of the disease and its dangers to life.

MIND CURE.—In referring to a recent article by Rev. Dr. Buckley on this subject, the Boston *Med. and Surg. Jour.* says:

Perhaps the cream of the whole article is the following, which constitutes a portion of a prayer, printed *verbatim*, capitals and all, from a text-book on a "Mind-Cure," issued by the President of the "New York School of Primitive and Practical Christian Science," who states that his school will be free from "eccentricity, pretension and fanaticism:"

"'PRAYER FOR A DYSPEPTIC.

"'Holy Reality! We BELIEVE in thee that thou art EVERYWHERE present. We *really* believe it. Blessed Reality, we do not pretend to believe, think we believe, believe that we believe. WE BELIEVE. Believing that Thou art everywhere present, we believe that Thou art in this patient's stomach, in every fibre, in every cell, in every atom; that Thou art the sole, only Reality of that stomach. Heavenly, Holy Reality, we *will* not try to be such hypocrites and infidels as every day of our lives to affirm our faith in Thee, and then immediately begin to tell how sick we are, forgetting that Thou art everything, and that Thou art not sick, and therefore, that nothing in this Universe was ever sick, is now sick, or can be sick. Forgive us our sins in that we have this day talked about our backaches, that we have told our neighbors that our food hurts us, that we mentioned to a visitor that there was a lump in our stomach, that we wasted our valuable time, which should have been spent in Thy service, in worrying for fear that our stomach should grow worse, in that we have disobeyed Thy blessed law in thinking that some kind of medicine would help us. . . . Lord help us to believe that ALL Evil is utterly unreal; that it is silly to be sick, absurd to be ailing, wicked to be wailing, atheism and denial of God to say "I am sick." Help us to stoutly affirm with our hand in Your hand, with our eyes fixed on Thee, that we have no dyspepsia, that we never had Dyspepsia, that we will never have Dyspepsia, that there is no such thing, that there never was any such thing, that there never will be any such thing. Amen.'"

HOW SCARLET FEVER COMES TO MICHIGAN.—The Michigan State Board of Health has received information from Dr. Sifton, Health Officer of Sutton's Bay township, which illustrates, in a striking way, how this country gets contagious diseases from the old countries. October 2, 1887, a family arrived in Sutton's Bay, Leelanaw county, direct from Norway. The family came over in the *S. S. Ohio*, of the Inman line, reaching New York September 30. Scarlet fever was on board the steamer during the passage, one child dying before the landing, and "several more were sick in the same way." One child of this family was taken sick with scarlet fever the day after reaching New York. The family, however, proceeded over the New York Central and the Lake Shore and Michigan Southern, to Michigan; then over the Detroit, Grand Haven and Milwaukee, and the Grand Rapids and Indiana, to Traverse City; then to Sutton's Bay. Another child of the family has since come down with the disease. The family had a certificate, signed by the surgeon of the steamer, that they had been protected by vaccination against small-pox; so they passed without detention the quarantine authorities at the port of New York, after they had been exposed to a contagious disease which causes more deaths by far in this country than small-pox.

ANOTHER NEW LOCAL ANESTHETIC.—Since cocaine made such a noise, drunime has been put in the market, but this latter has not filled the bill. Now a new remedy, an alkaloid named *stenocarpine*, is before the profession. Dr. Claiborne, of New York, has prepared it from the leaves of a tree, the exact place of which is not yet known, but which has a close resemblance to *acacia stenocarpia*. This alkaloid is said to possess powerful anesthetic

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properties, rivalling cocaine in its importance in ophthalmic practice. From two to four drops of a 2% solution introduced into the conjunctival sac, are sufficient to produce anesthesia, rendering various otherwise painful operations on the eye perfectly painless. The anesthesia is lasting, from fifteen to twenty minutes elapsing before sensation returned. It is also a mydriatic, and lessens intra-ocular tension.

How Some of the World's Great ones see us. — In dedicating "Underwoods" to his uncle, Thos. Bodley Scott, Robt. Louis Stevinson thus pays homage to the medical profession:

"There are men and classes of men that stand above the common herd: the soldier, the sailor and the shepherd not unfrequently; the artist rarely; rarelier still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization and when that stage of man is done with and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notabiy exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those you drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarassments; and what are more important, Heruclean cheerfulness and courage. So it is that he brings air and cheer into a sick room, and often enough, though not so often as he wishes, brings healing."

A Sanitary Convention, under the auspices of the State Board of Health, will be held in Albion, Mich., on Tuesday and Wednesday, Dec. 6th and 7th. There will be sessions the first day at 3 p.m., and 7.30 p.m.; on the second day at 9.30 a. m., 2 p.m., and 7.30 p.m., local time. At each session of the convention there will be addresses or papers on subjects of general interest pertaining to public health, each paper to be followed by a discussion of the subject treated. The admission to all sessions of this convention will be free, and the ladies are cordially and especially invited. The invitation is especially extended to health officers to be present and take part in the discussions.

The Farny Suture.—We beg to call attention to the advertisement of this article, by Reichardt & Co., of New York. From samples sent to our office we should say it will prove of the greatest practical value, not only in cases of ordinary flesh wounds, but also in many of the minor surgical operations. It will be found of great service as an adjunct to relieve the strain on sutures, as well as a very handy and effectual means of exerting pressure upon any portion of the body where such may be necessary. From the sutures being made in either straight or rounded pieces they may be applied to all kinds of wounds, no matter how irregular. Altogether, we think it will prove of great service to the general medical and surgical practitioner.

Lime in the Treatment of Cancer.—Dr. P. Hood, writing to the *Lancet*, says, that as the lime recommended for the cure of cancer, that of oyster shells, is not always obtainable, he would suggest as a substitute, the oyster preparation of the London Pharmacopeia, in doses of six grains twice a day, in "a wine glass full of milk or other fluid, such as tea." For an ointment to be applied to an open cancer, he recommends creta. prep. ʒiij, ol. amygdal. ʒij, the lime to be well mixed with the oil, and then added to two ounces of lanolin. This does not usually have a disagreeable odor, but if it does, a few drops of essence of bergamot may be added. It is to be applied on lint twice a day.

Warner's Safe Cure.—The *Druggist* gives the following as the formula for Warner's Safe Cure:

℞.	Powdered Saltpetre, . .	gr. 320.
	Liverwort, ...	ʒ i.
	Water, ...	q. s.
	Alcohol, ...	ʒ 2.
	Glycerine	ʒ 1½.
	Ess. Wintergreen . . .	gtt. 40.

Infuse the liverwort with a pint of hot water for two hours; strain and filter. Dissolve the nitre in this liquid; when cold add the other ingredients and water to make up to one pint.

Notched Teeth.—Jonathan Hutchinson calls attention *(Brit. Med. Jour.)* to a form of notched teeth, not due to syphilis. He says: There is a notching of the upper incisor teeth, affecting the two central ones of the permanent set, which is often confounded with that due to syphilis, although having no connection with it. The points of distinction are that the non-syphilitic tooth is wide at its free edge, and is hard and craggy, while that from syphilis is pointed and worn down. A

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case is mentioned where such notched teeth were hereditary in a family, the effects occurring in pairs, and never affecting the whole row.

SULPHUR IN CHLOROSIS.—Schutz and Strübing have drawn the following conclusions (*Med. Chron.*) as to the treatment of chlorosis by sulphur:—1. In cases of simple chlorosis, in which iron has no effect, the general condition is markedly improved by sulphur. 2. After sulphur has been given for some time, treatment with iron could be started and continued successfully. 3. Sulphur is not borne in cases of chlorosis complicated with catarrhal, inflammatory conditions of the digestive tract.

℞—Sulph. depur., ... 150 grains.
Sacch. lact., ... 300 grains.
M. F. pulv. Half a teaspoonful three times daily.

CARMINATIVE FOR COLIC IN INFANTS.—Dr. McGee recommends the following (*Med. Record.*):

℞.—Magnes. carb., ... ℈ij.
Ol. aniseed, ... ♏j.
Tr. cardimomi,
Tr. asafætide, ... ♏ij.
Glycerinæ, ... ʒij.
Aquæ menthe viridis,
Aquæ Camphoræ, . . . ad fl. ʒij.
M. Sig.—Teaspoonful every half-hour till child is comfortable.

This does not preclude warm baths, hot cloths on abdomen, relief of constipation if present, massage, etc., *but it does* all opiates and soothing syrups.

THE ONTARIO MEDICAL LIBRARY ASSOCIATION.—The secretary of the Ontario Medical Library Association has received a letter from Dr. Hodge, of Mitchell, Ont., donating to the library the entire collection of medical works of the late Dr. John Rolph; as also from Dr. H. C. Wood, of Philadelphia, making a large number of donations from his private library. It is gratifying to know that the interest in the scheme is general throughout this Province, and it is to be hoped the gifts so far offered, are but an earnest of many more to follow.

PNEUMONIA.—Dr. Moore, of Dublin, concluded his paper before the late International Congress in these words: "The day is seemingly not far distant when we shall speak of pneumonic fever in precisely the same way as we use the term enteric fever at present; that is, to signify a zymotic or specific blood disease, manifesting itself after the lapse of a certain time—the period of incubation—by physical phenomena, objective and subjective, connected in this instance with the lungs."

POT. IODID. IN ASTHMA.—Dr. Cozenave de la Roche says (*British Med. Jour.*) that the above remedy is very efficient in asthma if given in cow's milk. His formula is *aq. dest.* 150 grammes, *pot. iod.* 8 grammes. A tablespoonful in a cup of milk twice a day.

BROMO-SODA.—W. C. Deane, M. D., 727 Lexington Avenue, N. Y., says, during my voyage on the steamer *Arizona* I cured at least twenty-five cases of sea-sickness by giving Warner & Co.'s preparation of "Bromo Soda" in large doses. I heartily commend it, as from personal experience it afforded great relief when other remedies failed.

SACCHARINE.—A New York druggist announces (*Med. Rec.*) that he has just received an invoice of anhydroorthosulphamidobenzoic acid ($C_6H_4 \begin{matrix} CO \\ SO_2 \end{matrix}$) NH), or saccharine, one grain of which is sufficient to sweeten a cup of tea or coffee.

DOSE OF ANTIPYRINE.—Dr. Ostrander, of Lansing, Mich., writes (*Med. Rec.*) that he has always succeeded in getting the desired result with five grain doses of antipyrine, repeated each hour for three hours. He believes it useful in migraine, and to relieve the pain of rheumatism.

DR. JOHN WILLIAMS has such faith in antiseptic treatment, says Junius C. Hoag, that he would not hesitate to attend a patient in labor, although he had, on the same day, visited another patient suffering from puerperal fever.

PROFESSOR BARTHOLOW recommends a three-grain pill of iodoform three times a day, for the flushings and other morbid sensations occurring about the climacteric.

The London (Eng.) School of Medicine for women has sixty students.

RICHARD QUAIN, the great anatomist, died recently, aged 71 years.

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Books and Pamphlets.

PATHOLOGY AND TREATMENT OF GONORRHEA AND SPERMATORRHEA. By J. L. Milton, Senior Surgeon to St. John's Hospital for Diseases of the Skin, London. Octavo, 484 pages. Illustrated. Price, bound in extra muslin, $4.00. New York: William Wood & Company. Toronto: Carveth & Co.

This work is intended for the practitioner and not for the college student, as it takes for granted an acquaintance with the elements of the subject.

Some of the statements contained in it are pretty sweeping, and will be read with some surprise by the majority of medical men. As an example, we may quote the following: "In men who have reached the age of three or four-and-twenty, anything beyond one (nocturnal) emission a month, requires attention." Besides the pathology and treatment of Gonorrhea and Spermatorrhea he includes, in the present work, chapters on the pathology and treatment of Impotence He is somewhat iconoclastic, but gives as his reason the fact that most of the remedies vaunted as curative in Gonorrhea Spermatorrhea and Impotence have not fulfilled the expectations which the first accounts of them were calculated to raise.

He says, "Nothing has been recommended by myself in this work but what has stood the brunt, not merely of experience, for that I rate rather low, but that of special observation."

The book is, we believe, invaluable as a consultation book, filled with sound doctrines, and what is of more importance to the busy, general practitioner, practical and concise directions as to treatment. The publishers have done their part of the work well.

A MANUAL OF THE PHYSICAL DIAGNOSIS OF THORACIC DISEASES. By E. Darwin Hudson, jr., A.M., M.D., Professor of General Medicine and Diseases of the Chest, in the New York Polyclinic, etc.

This is a well printed book of 150 pages, on good paper, from the press of W. Wood & Co. In consequence of the sudden death of the author, "just after the manuscript had been placed in the printers' hands," the correction of the proof sheets devolved on his friend Lawrence Johnson, M.D. The work will most probably be more highly valued by the teachers of clinical medicine than by the students, though to both it will not fail to prove highly serviceable. Chapter VI, which is devoted to a synoptical exposition of the diseases of the lungs, will be studied with profit by both classes of readers. The author has here given, in a condensed and clear form, everything of importance in the "definition, pathology, causes, symptoms, physical signs, diagnosis, prognosis, and treatment," of the most important affections of the lungs, sixteen in number. The like, if not more and better, may be said of his synopsis of diseases of the heart. The illustrating engravings, numbering 93, will be more easily understood by the teacher than by his pupils. In truth they present sorrowful evidence of the consequences of the untimely removal of the author from earthly labour; but the student who has become well grounded in his anatomy, will be quite able to overlook those deficiencies and obscurities which must be presented to the beginner, or to the idle and careless, who are always promising to *begin* to study earnestly, but too seldom reach this herculean achievement. No book, however excellent its merits, can ever benefit this class of illusionists.

LESSONS ON GYNECOLOGY. By William Goodell, A.M., M.D., Prof. of Clinical Gynecology in the University of Pennsylvania, etc. Third edition, revised and enlarged. Illustrated. Philadelphia: D. G. Brinton. 1887. Toronto: Hart & Co.

The new edition of Goodall's popular work shows careful revision. It is not a complete treatise on the diseases of women, but consists mainly of clinical and didactic lectures delivered to students at the University of Pennsylvania, and possesses the advantages and disadvantages of matter from such a source. Suffice it to say, that the work is practical, without much padding, and that the author goes straight to the point. The book is a very useful one both to the student and practitioner.

MASSAGE, PRINCIPLES AND PRACTICE OF REMEDIAL TREATMENT BY IMPARTED MOTION. By Geo. H. Taylor, M.D. New York: John B. Alden. 1887.

This little book of 173 pages, will be useful as a guide to those ignorant of massage in the treatment of chronic disease. It is written for the general public, but will be found interesting and instructive to the general practitioner.

Births, Marriages and Deaths.

On the 19th Oct., Dr. T. H. Robinson, of Kleinburg, to Annie C. Hill, of Toronto.

On the 24th Oct., Dr. J. F. Bell, of Toronto, to Jessie Brown, of Eglington.

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THE CANADA LANCET.

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Original Communications.

ELECTRICITY IN GYNECOLOGY.

BY A. LAPTHORN SMITH, B.A., M.D, M.R.C.S., ENG., F. O. S., LOND.; LECTURER ON GYNECOLOGY, BISHOP'S UNIVERSITY, MONTREAL.

As the treatment of diseases peculiar to women, by electricity, has in the last few years attained a high point of perfection and is now attracting attention all over Europe and America, owing to the writings of Apostoli, of Paris, and having lately had the pleasure of spending some time at his clinic, I thought it might be of interest to your readers to be furnished with some observations on this treatment. And although Apostoli himself is an enthusiast and therefore more impressed than anyone else with the advantages of his methods over all others, still there is so much reason in what he teaches, and his views are so thoroughly borne out by actual results, that no one can spend very much time under his tuition without becoming almost as much impressed with its advantages as he is himself.

Certainly the treatment of diseases of the uterus by electricity, either galvanic or faradic, has this in its favor, that it is the rational one for all diseases of that organ. Take, for instance, displacements; these all depend either on the womb being too heavy for its supports, or its supports being too weak to bear even a normal weight. In the first case the stimulating influence of a current applied to the muscular tissue or organ will have the effect of contracting its muscular fibres and consequently of diminishing its size and the calibre of the vessels supplying it with blood; for the muscular coats of the blood-vessels are made to contract, and the active and passive congestion is thereby diminished.

If on the other hand, the size and weight of the organ remains normal and the displacement is due to defective action of the muscles which should support it, owing to their being in a state of degeneration, then no medication can be so effective as that which tends to tone them up and develop them to their normal strength. In most of our text books this cause of displacement is slightingly dealt with. A year ago, at the meeting of the Canada Medical Association, at Quebec, in a paper which I had the honor of reading on Alexander's operation, I analysed the causes which lead to the uterus being held in place, and on my recent visit to Europe, the opinion I then expressed was fully endorsed by many of the leading authorities, whose views I obtained. Defective muscular tonus of the uterus and its muscular ligaments, and of the vaginal tube or column, and of the perineal muscles on which the end of that column rests, they all agreed was the cause of uterine displacements. This view is a rational one and is proven by the fact that they occur always in women whose muscular system is in a low state of development. Uterine displacements, I fancy, are unknown or at least very rarely met with in women living in a savage state, or among women of those countries where the manual labor is mostly performed by members of that sex. They are especially noticed among women of the higher classes, and among the lower classes living in a high state of civilization, whose muscular system, not only of the internal organs, but also of the limbs, is in a state of atrophy, amounting almost to wasting. In the dissecting-room we find cases in which the muscular system is so very much attenuated, that many of the muscles cannot be found. It is for this reason, doubtless, that in many cases for which the operation of shortening the round ligaments or round muscles has been performed, for the cure of retroflexions or retrodisplacements, the operator has been unable to find them. As women of very well developed uterine muscles rarely, if ever, have anything to complain of in that direction, it is, I fancy, rare to find these muscles well developed in cases of displacement. It was, therefore, with peculiar pleasure that I found Apostoli treating these cases by means of electricity. If we were called upon, for instance, to treat a case of lateral curvature of the spine depending upon the degeneration of the muscles of one or both sides, we would not be justified in trusting to artificial sup-

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ports, such as iron stays, but rather we should, by electrical applications, exercise, good food and good air, develop those muscles, rather than make them more lazy by doing their work for them by means of supports. And as, every time muscles contract, they become larger and stronger (witness a blacksmith's right arm), so the best way of enlarging and strengthening the weak muscles would be to make them go through a course of gymnastics. It is within the experience of every doctor that displacements of the uterus have come on suddenly after an effort of some kind, while, in my own experience, some cases occur every summer regularly on the return of warm weather, when everything and everybody seems to be relaxed. Cases of displacement often come to us with a history attributing them to nervous shock or sudden fright. This could hardly be the case if the uterus owed its being held in proper position to ligaments instead of muscles, as only the latter depend upon the nervous system to any extent. Again, there is a large class of cases in which the disease consists of instability or disorder of innervation, in which the nervous system seems to act viciously for the want of proper control.

During my stay with Apostoli, I have over and over again seen women come to his clinic complaining of agonizing pain in the ovarian region, which was so real and so severe that they could not endure the weight of my hand. After ten or fifteen minutes' application of the faradic current passing through a long, fine wire, the disorders, under its influence, seemed to be so controlled as to no longer produce the manifestations of which the patient complained, and I could then press my hand deep down upon the ovaries without causing the slightest pain.

With regard to the sort of electricity; one should be able to distinguish the properties of galvanic and faradic currents, and even to accurately apply the different kinds of the latter, exactly in accordance with the requirement of each case. Thus, the current from the short, thick wire is suitable for putting the muscles through a course of gymnastics, and is, therefore, the peculiar remedy for muscular atrophy wherever it may be; while the current from the fine, long wire is especially adapted to disorders of the nervous system, being sedative and tranquilizing in its effects. The galvanic current is to be applied to disorders of nutrition, and the effect varies according to the pole used. Thus, the negative pole has a caustic action similar to alkalies, such as potash or ammonia when used in sufficient strength, and leaves less tendency to retraction, while the positive pole, around which acids accumulate, has a coagulating and retracting action, and is especially suited to cases of hemorrhage. It is, however, in the treatment of fibroids of the uterus that Apostoli has achieved a world-wide and well-deserved reputation. The former treatment in vogue has been to remove the tumor, always a dangerous operation, or the removal of the appendages which is not without the danger common to any opening of the abdominal cavity. In these cases Apostoli uses a constant current, and for this he requires a good battery consisting of about 60 Leclanché cells, which have the advantage of working a long time without being refilled or cleaned, and only using themselves up while they are in actual use. 2nd, and perhaps the most important, a good galvanometer, by which he is able to measure out the exact dose of electricity suitable to each case. The importance of this instrument will be understood when we remember that the outflow, of electricity from any good battery varies from time to time and from day to day, so that what would be a suitable dose to-day would be a quite useless and weak one to morrow. 3rd, a collector, by which he is able to bring in the circuit, one by one, as many cells as are necessary to produce the proper dose. And as the first cells are used up, he is able to bring into the circuit the middle or last ones which still remain fresh. 4th, an invention which is specially his own, and which has led to a revolution in the application of high currents (I refer to the clay electrode), consisting of a sheet of zinc about ten inches square, on the upper end of which is attached a wire, and on the under surface a cake of very moist potter's clay, held together by means of a piece of tarletan on its under surface, the piece of zinc being embedded on its upper surface. Before the application of this material to the purpose of an electrode, the highest dose of electric current which could be applied without cauterizing was from 40 to 50 milliampères; but with the moistened cake of clay, by which the point of contact with the skin is spread over such a large surface, and by which the electricity enters by thousands of doors, I have

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over and over again seen a strength of 250 milliampères administered without the patient complaining of any sensation in the skin, or producing the slightest heat or redness. 5th, a uterine electrode, made of platinum, for the application of a positive current, for which, owing to the acids produced causing rapid oxidation, this metal is alone suitable. This platinum electrode is prevented from touching the sensitive vagina by means of a non-conducting covering for a considerable part of the length, otherwise the current would escape into the vagina, rendering the operation unprofitable. For this protecting covering he has found a celluloid tube the best.

In all cases of uterine fibroids occupying a position in the uterus, such as to render a safe puncture impossible, he employs a positive current in the uterine cavity, as will do in cases of endometritis, and when it is not advisable to destroy a large amount of tissue by puncture. When, however, the fibroid is in the posterior half of the uterus, so that he can reach it through the posterior cul de sac, he uses a negative current applied through an electrode made in the shape of a trocar. As much of his success is due to the observation of a number of little details which might be considered unimportant, I might describe the process of making a chemical galvanocaustic puncture:

1st. A thorough irrigating out of the vagina with a sublimate solution of $\frac{1}{1000}$, from which he has never had any ill effect.

2nd. Having introduced his right finger so as to touch the fibroid, pressing down the uterus against it with his other hand, he inserts the celluloid tube to the place he has chosen for his puncture. He then introduces the steel trocar (the length having been previously arranged, so as to project one-third to two-thirds of an inch beyond its covering) through the roof of the vagina right into the tumor. The current is then very gradually turned, a careful watch being kept on the galvanometer. When the woman complains of pain he diminishes her sensibility by, for the moment, increasing the current beyond her endurance, then gently reduces it by a few milliamperes, so that she is better able to bear it by comparison without complaining. This is what he calls establishing tolerance. He then carefully increases the current by successive stages, to one hundred milliamperes, for the first seance, but in subsequent seances reaching as high as two hundred and fifty. The woman is easily able to bear this high intensity without a great amount of pain, and also the short pain caused by the introduction of the short trocar. After from five to ten minutes the application of the current is very carefully and gradually reduced, as the sudden cutting of it off would cause a painful shock, owing to the induced current set up in the pelvis. The woman is then again carefully irrigated out and a small piece of iodoform gauze is introduced up to the wound, and the woman is then placed in bed for a few hours or for half a day, after which she returns to her home without any inconvenience. On her coming again a few days later, the gauze is removed with the slightest stain of blood or sometimes a little pus on it. The vagina is then again washed out and a fresh piece of gauze used, and after a week, or in some cases after two or three applications a week, the woman is able to return to her occupation.

Apostoli does not pretend that this method will rapidly remove a large fibroid, but he does pretend to cure the patient symptomatically; that is to say, it is slightly reduced in size after each application, and the woman suffers no inconvenience from it.

I did not have to depend, nor did Apostoli wish me to depend upon his word for the advantages of his treatment, as he invited me to walk about among the patients and to converse with them as to the kind of sensation they felt before treatment and as to the relief they experienced after, and with few exceptions their reports were exceedingly encouraging, while in cases of acute pain in the organs on pressure I could myself observe the relief. There is one thing which he does very thoroughly and insists upon his assistants doing, and that is a thorough cleansing of the hands and instruments before and after each application, or even examination. The hands have to be well washed and the fingers scrubbed with sublimate solution, and the vagina of every patient is thoroughly washed, while the instruments which are introduced into the uterine cavity are rendered scrupulously clean by being passed through the flame of a spirit lamp, and afterwards dipped in a strong carbolic solution. That he has never had any trouble from sublimate poisoning, may perhaps be explained by a little knack he has of pressing

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down the perineum with his finger after each washing, so as to prevent any liquid from remaining in what is called the seminal lake. His work is done with the patient in the dorsal position, with head and shoulders considerably elevated and her feet being held in supports, permitting the buttocks to be brought over the edge of the table so that any liquid falls into a receptacle placed beneath it.

In France and Germany I was so much impressed with the advantages of the dorsal position in certain cases, that I brought with me from Berlin a pair of supports for the legs, which I have had fastened to my office table, and have found that a woman can be kept in the proper position and more strongly and firmly held than if I had two assistants with me.

Another thing that strikes one at Apostoli's, and indeed at the clinics of all the leading men in Europe, is the little use they make of the speculum, while in America it is a common thing to find a dozen or so of them in the gynecologist's outfit. Apostoli only uses a Cusco's speculum and even that very seldom, trusting more to the sense of touch than to sight. Another thing which impressed me greatly, was the manner in which they do not hesitate to bring the uterus down to the vulvar orifice, or at any rate sufficiently so to make an operation upon it easy. Then Apostoli, when he cannot reach the uterus with his finger, presses it down from above until he can feel every part of it; while Martin and Olshausen, of Berlin, do not hesitate to grasp each lip with what they call a *kugelzahn*, which is as commonly in use there as a speculum is here, and then draw it down to the field of vision.

Another class of cases in which Apostoli's treatment is remarkably successful is that of chronic permietritis, but he is very guarded in the use of this treatment if there is the slightest sign of acute inflammation. In a case of chronic cellulitis, the patient was enabled after five or six applications of the current, to walk a considerable distance, sometimes several miles, although before the treatment she had to come in a carriage. One case especially, which impressed me very much, was a woman who came there in a full state of hemorrhage. Apostoli cleansed the uterus and vagina and then introduced the positive platinum sound, five inches in length, into the uterus, and applied a strong current. After a few minutes he requested me to withdraw the sound, which had entered quite easily, and to my surprise I was unable to do so. The instrument seemed to be grasped as though it had been held in a vice; after using considerable force I was unable to withdraw it, when it came out quite clean.

With regard to parovarian cysts, he thinks they might in many cases be punctured with the galvano-cautery through the vagina, which would prevent any escape of their contents into the peritoneum. This he has not yet tried, but suggested that it was a good field for experiment.

In cases of extrauterine fœtation, he would prefer to push down the egg and puncture it with a chemical cautery. In cases of polypus, he removes the tumor by destroying the whole uterine mucous membrane, by means of a negative chemical cauterization.

In arrested development of the generative organs, he uses the faradic current from a long fine wire, and applied by means of a uterine or vaginal exciter, which is made of hard rubber, through which the two currents run to near the end, where they terminate in platinum electrodes, one or two inches of the non-conductor intervening between them. This furnishes a stimulating influence which spreads for a considerable distance all through the organs, increasing the activity of their circulation.

An immensely powerful current can be easily endured through the uterus, provided that the external parts are properly protected.

The ordinary currents used in medicine, if applied to the uterus, are quite inefficient for the treatment of uterine diseases.

If we were to touch the current he uses at its full strength, it would give a sensation that we would never forget.

In conclusion, I may state my conviction, that in electricity, we have one of the most powerful and at the same time most manageable of agents in the whole list of gynecological therapeutics.

In a future article I purpose giving the results of my own experience in the cases now under treatment.

Sir William Gall is recovering from his slight paralytic shock.

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TREATMENT OF CHRONIC DISORDERS BY SWEDISH MOVEMENTS AND MASSAGE.

BY B. H. BROBERG, TORONTO.

For about seventy-five years the Swedish movements have been applied in Sweden, where Prof. Henry Ling, the originator of the system, opened the first institution in 1813. Thanks to the successful results of the treatment, Prof. Ling was granted a stipend by the Government, to enable him to enlarge the establishment. After the founding of the Royal Central Institute in Stockholm, other institutions gradually sprung up, not only in Sweden, but also in different parts of Europe, all under the direction of graduates of the Central Institution. The institutions on a large scale throughout Europe number at present about thirty-five. In the United States the system has of late years taken a firm hold; thanks to the zeal of Drs. Geo. Taylor and Wm. Karlsive, of New York; Dr. Benj. Lee, of Philadelphia; Dr. Sparre, of Chicago, and others, and being acknowledged and supported by such men as Prof. Louis Sayre, Drs. Pepper, Weber, and other prominent medical men, there is little doubt of its getting as good a foothold here as in Europe.

The system is divided into two classes of movements, Medical and Hygienic. The medical, calculated to improve imperfect physiological relations, and to break up long-standing ailments; and the hygienic, to produce a harmonious development of the whole organism. The former have exclusively to deal with disease, and the latter act as preventives to disease, inasmuch as the movements are essential, not only to the development of the growing generation, but also to keeping aloof ailments peculiar to persons of sedentary habits, and to old age.

The medical movements are divided into three kinds: Passive, Active, and Duplicated.

Passive movements (under which group we place massage) are given without any exertion on the part of the patient, and are usually administered until the patient has gained sufficient strength to take active and duplicated movements. Active movements are made by the will and power of the patient, and duplicated under resistance of operator or apparatus. It is an undeniable fact, that persons of sedentary or "one-sided" habits are more subject to divers ailments, than those whose position affords them opportunities to put all their physical as well as mental powers into action. If the movements have the power to aid the development, and to prevent functional disturbances in growing humanity—as well as the mature—there is no reason why the organs impaired by disease should not, by the same means, be wholly or partially restored to the performance of their respective duties.

I propose, in as few words as possible, to explain some of the influences of the movements upon the various functions which constitute *health*.

1. What influence have the movements upon the blood?

Movements accelerate circulation and respiration. Increased circulation assists absorption of nutritive substances from the alimentary canal, and increased respiration supplies the blood with more oxygen (the chemical action of which is so essential in the reproduction of the organic bodies) and causes a decrease of carbonic acid. The increased supply of oxygen and absorption of nutritive substances gives a richer deposit of nutriment to the tissues, and causes an increased oxidation and absorption from them of substances useful for nutrition. The increased circulation also promotes separation from the blood of substances injurious to the organism.

2. What influence have the movements upon the nervous system?

We seldom meet sufferers from nervous disease among the working classes, or among those who—by means of health-giving exercises—keep their systems in good condition; whereas we very frequently find them among people who lead an inactive life. This is a fact so well known, that an answer to our question might seem unnecessary. The impulse of the will for active movements issues from the brain, and is distributed by the nerves to the muscles. An active movement consists, consequently, in a harmonious action of the will, nerves and muscles. According to physiological laws, muscular action develops and increases tissue, therefore it also must strengthen the nerves situated in the tissues, and the nerve centres with which they are connected. From this we also draw the conclusion, that muscular action has a beneficial influence upon the will.

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3. What influence have the movements upon the respiratory organs?

As before mentioned, muscular action increases respiration. A deep inspiration, while moving the arms slowly upwards, elevates the head, the back is drawn erect and slightly backwards, the shoulders are drawn backwards, whereby the chest-muscles elevate the ribs, thus enlarging the chest cavity in a horizontal direction. The chest cavity is simultaneously enlarged in a vertical direction, through the contraction of the diaphragm.

In a strong expiration, the abdominal organs are pressed together by the abdominal muscles, the diaphragm is forced upwards, and the ribs are lowered. Here the chest cavity is made smaller, in a horizontal and vertical direction. Through a constant practice of respiratory movements the chest cavity is enlarged, and as a consequence the respiratory organs will obtain fuller play.

If movements result in an increase of oxygen and decrease of carbonic acid in the blood, as well as a speedier circulation, they must also have a beneficial effect on the digestive and secretive organs.

The effects of the movements in aiding the absorption from the alimentary canal, has already been mentioned. We all know that exercise increases appetite. This is to a large extent due to the stimulating effect upon the abdominal organs, by the indirect action of the voluntary abdominal muscles upon the involuntary muscles. In constipation, for instance, when, through weakness of the intestinal walls, feces have collected in the cecum, colon, sigmoid flexure, etc., strong movements of the abdominal muscles—together with outward pressures and manipulations—have rectified cases of long standing, without any other means whatever.

For the normal performance of functions of the lymphatic system, blood in a nor mal state, as well as a normal supply thereof, besides normal nerve power, is necessary. It has already been stated that the movements produce these results.

The effect of the movements upon the skin shows itself in the increased temperature and color. The stimulating effect upon the nerves located in the skin, by the simple passive movement, "stroking," for instance, shows itself plainly in the increased sensibility.

4. What influence have the movements on the urinary organs and organs of generation?

Several disturbances of these organs are brought on by inactivity. Amenorrhea, dysmenorrhea, menorrhagia and other diseases of women, as well as urinary concretions, cystitis, etc., are more prevalent among persons of sedentary habits.

If the blood-pressure in the portal-venous system is greater than in other parts of the organism, it is quite natural that a sitting posture will increase this pressure, and consequently aggravate disturbances of the pelvic organs.

But it will also be conceded, that properly administered movements will counteract the effects of sedentary habits and totally rectify, or at least check the progress of disease.

Finally. What influence have the movements upon deformities?

According to statistics, the majority of deformities treated by the Swedish movements have been lateral curvature of the spine, and I will therefore take that disease as an example.

The deformity is attributed to various causes, such as necrosis, rachitis, scrofula, atrophy of the respiratory muscles, excessive use of the muscles of one side, weakened muscular action from tight lacing, etc. In every case we find muscular weakness, either as an immediate cause, or as a result of the trouble, which fact accounts for the successful results of the treatment in this special deformity. In cases where muscular weakness is the immediate cause, recovery is speedy, and complete, if the case is taken in hand before the vertebræ have sustained any injury. If a morbid change has taken place in the vertebræ, from one cause or another, the muscles attached to the spine will suffer first, and the weakness will gradually spread until a general collapse of the entire system will result. Movements are here applied with a view to checking the further development of the disease, not only by strengthening the muscles whose function it is to keep the spine in its natural posture, but also by improving the general health of the patient. A full recovery is of course impossible.

The ordinary lateral curvature is either Single or Double. The single curvature generally involves either the entire dorsal and lumbar regions, or the lumbar and lower part of the dorsal. In a very few cases we find the curvature confined to the dorsal region alone. In single curvature the convexity is in most cases towards the left. This

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is to a large extent due to the habit of resting upon the right leg in preference to the left. A curvature with the convexity towards the right is often caused by the more frequent use of the right arm and side-muscles, the spine being drawn to the right by the repeated contraction of the muscles. We find upon a closer examination of a single curvature, a smaller curve visible, either above or below, in the opposite direction from the larger one. This small curve will, if the disease is left to itself, give rise to a double curvature. In double curvature the upper convexity takes in most cases a right direction, and the lower a left. As stated before, a single curvature appears more frequently towards the left. In this case the double curve begins in a right direction from the point where the single curve terminates. If the single curve involves the whole of the lumbar and the lower part of the dorsal regions, the double curve begins *above* the original curve. We have also seen that a curvature towards the right is in some cases owing to a more frequent use of the right arm and side-muscles. In such cases the curvature begins in the upper part of the spinal column, and the double curve commences in a left direction *below* the original curve. This explains the ordinary cause of the peculiar form a double curvature takes in the majority of cases.

It certainly seems rational to think that if the spine is curved towards the left or the right, or both, development of the relaxed muscles on the concave side, and comparative rest of the muscles on the side towards which the spine curves, or the convex side, will by degrees bring the spine into its natural position. Massage (French for kneading) is, as before mentioned, placed under the group of passive movements. Its principles are of old origin. The Greeks and Romans were fully aware of its beneficial influences, and it is now so universally known, if not yet practised, that it would be time wasted to speak of it in detail. That it is not more in use, is undoubtedly caused by the scarcity of intelligent operators.

It requires both intelligence and practice to do the massage treatment justice, and there is no doubt but what it has been to a large extent brought into disrepute by persons who, having read or perchance seen some of it, imagine themselves competent to give the treatment. In some cases the Swedish movements have been tampered with in the same manner, but as a matter of course with less success, the principle not being so easily grasped. Massage is in most cases combined with the Swedish movements, but in some instances it is applied alone, as when the patient is unable to take active or duplicated movements, or when daily occupation affords the patient suitable exercise. In some cases again, and these are more frequent, the movements are administered without the aid of massage.

From the above synopsis it will be seen, that the main object of the movement system is to aid nature in its work under favorable circumstances in life, and to take nature's place, so to speak, when our duties in one way or another interfere with its demands.

The general succession of the *modus operanai* is gradual at the beginning, as well as at the end of the course. The treatment is always commenced with movements of a mild form, and by degrees the number as well as the force of the movements are increased. After the disease has been mastered to a decided extent, the number of treatments is gradually decreased. The prevailing idea that a treatment twice or three times a week is sufficient, is a great mistake. We never find a professional oarsman, for example, practise for a race twice or three times a week. He has his regular routine laid out before him, certain time for daily practice, certain diet, etc., and unless he follows this routine, necessary to strengthen his physical powers, he is unfit for his work. On the same principle, the system of the sufferer from chronic disease needs a systematic attention. A deviation from the rules of the treatment is apt to let the disease get the upper hand. Two days' rest will often undo the beneficial effects of one day's treatment. To begin with two or three treatments a week is wasted time and money for the patient, and energy for the operator. I wish to draw attention to two other points on which the system has been misrepresented. In the first place, persons professing to fully understand the system, have promised a cure in a very limited time, in order not to discourage the patient from taking treatment, and thereby loosing an opportunity of earning a few dollars. I have had patients sent me by physicians who have been disappointed if a cure or a decided improvement has not been attained in three or four weeks, and some of these

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cases have perhaps baffled the skill of one or several physicians for a considerable time, and they have been advised to try the treatment as a last resort. It is hardly fair to expect that in such cases the system can be built up in a few weeks. It takes, as a rule, a longer period of time for a chronic trouble to develop, so time must be allowed, not only for checking the progress of the disease, but also for recuperation.

The progress of improvement depends largely upon the duration and nature of the disease, the constitution and habits of the patient, etc.

In the second place, these persons have resorted to what they generally term "rubbing," and they make out that this mode of treatment defines the Swedish movement and massage treatment. This is another great mistake. There is more than one way to give massage properly, and as for the Swedish movements, they vary according to the disease, and no two patients out of twenty-five are treated exactly alike.

The following are a few extracts from the reports of the Swedish Movement Institution, in Gothenburg, Sweden :—

Diseases of the heart (functional): cases 10, cured 9, not benefited 1 (organic): cases 49, benefited 42, not benefited 7; defective capillary circulation: cases 7, cured 7; paralysis of all forms: cases 22, cured 7, benefited 15; constipation: cases 36, cured 20, benefited 16; rheumatism: cases 45, cured 14, greatly benefited 31; disordered menstruations: cases 6, cured 2, greatly benefited 4; debility in anemia: cases 67, cured 9, greatly benefited 52, not benefited 6; spinal curvature: cases 62, cured 20, greatly benefited 33, not benefited 9. Those not benefited were mostly irregular attendants.

I am fully convinced that the time is not far off when the medical profession in Canada, as in Europe and the United States, will profit by the aid of the movement system, not only in cases of chronic disorders, but also in cases of convalesence.

THE OLECRANON PROCESS SUCCESSFULLY WIRED.

BY N. E. MACKAY, M.D., M.R.C.S. ENG., ETC.
Surgeon V. G. Hospital.

W. G., aged 20, single, a lumberman, was admitted into the P. and C. Hospital on the 8th day of September, 1886, suffering from an ununited fracture of the olecranon.

Previous history.—About ten weeks before being admitted, the patient while walking over a tumbled-down wharf, suddenly fell through a hole in it, and in falling, his elbow struck against a plank, producing fracture of olecranon process. The patient on getting up found the power to extend the arm very much impaired. The joint was very painful and swollen for some time after. He at once went to a "bone-setter," who told him the elbow-joint was dislocated and gave his arm a few wrenches and assured him the dislocation was reduced, and that in a few days he would be able to use the joint. In the meantime the arm was put up in a flexed position, but finding no improvement taking place, it was left in this position for five or six weeks. The patient feeling discouraged that no improvement had taken place, now consulted a doctor, who told him the olecranon process was fractured, and put the arm up in the straight position. This treatment was continued for two weeks, after which he made up his mind to come to the hospital.

Condition when admitted.—On examination the olecranon process was found fractured, and a distance of about one-eighth inch between each fragment in the extended position of the arm; but in the flexed position the bones were fully one and one-fourth inch apart, and there was no attempt at union of any kind. The circumference of the joint was fully one inch larger than its fellow and the power to extend the arm was much impaired. There was slight effusion of fluid into the cavity of the joint. The patient's general health was very good. A consultation of the medical staff of the hospital was held on the 12th, at which an operation was determined upon.

On the 14th I performed the operation of wiring the olecranon, in the following way, viz.:—The patient being etherized and an Esmarch bandage applied and the parts thoroughly washed in carbolic solution (1-20), I made a vertical incision two and one-half inches long, over the most prominent part of the olecranon process, beginning about an inch above its upper border, and carefully removed the soft structures from the ends of the fragments.

On exposing the bone, I found the fracture extended downwards and forwards from the

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posterior aspect of the olecranon to its base, and no attempt at union of the fragments. The soft structures being now held well apart by two assistants, I removed a very thin slice of bone, with a Hay's saw, from the broken surfaces of the two fragments and then drilled two holes in each of them from their periosteal surface. The oozing of blood being stopped, I washed the wound thoroughly with bichloride solution (1 to 3,000) and then brought the vivified surfaces of the fragments together and held them there with platinum wire. There was no drainage tube inserted in the joint, but a catgut drainage was placed in the wound in soft parts. The edges of the wound were brought in position and held there by catgut sutures and a Lister's dressing was applied. The arm was then put up on a well padded straight anterior splint. The operation occupied an hour and a quarter in its performance, and was done under a spray of carbolic acid and with strict antiseptic precaution. On the evening of the day after the operation his temperature ran up to 100° F., but was normal on the second day and remained normal until the evening of the fourth day when it again rose to 100° F. This day he complained of pain at the bend of the elbow, and on removing the dressing I discovered a large swelling over the upper end of radius and external condyle of humerus (radio-humeral articulation), but the wound looked very well. An ice-bag was kept over the swelling for three days and nights in succession. From the 18th day to the 21st, his temperature ranged from 99° in the morning to 101° in the evening. On the 21st, the seventh day after the operation, the stitches were removed, union having taken place by first intention. On the 20th of October the fracture was found firmly united by bone. On this day active and passive motion, together with stimulating liniments, friction and shampooing were commenced with and continued until the natural movements of the joint were completely restored. On the 18th December, when he was allowed to go home to spend the Christmas holidays, he could touch his forehead with his hand easily. But before leaving, he was instructed to exercise his arm well, while away, by chopping wood. On the 9th January, 1887, he returned to hospital with all the movements—flexion, extension, induction and supination—completely restored. On the 12th, I removed the wires, and on the 25th he was discharged completely cured.

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Correspondence

OUR NEW YORK LETTER.

THE BULKLEY CLINIC — WHITEHEAD'S OPERATION FOR HEMORRHOIDS—THE MEETING OF THE OTOLOGY AND LARYNGOLOGY SOCIETY.

NEW YORK, Nov. 21st.

One of the very best skin clinics in New York is the Bulkley Clinic, held in New York Hospital once a week by Dr. Bulkley, of this city. There is plenty of material, and the doctor is careful to select good cases, while his splendid collection of wax preparations helps him to show the differential diagnosis. The clinic is for practitioners only, who show their appreciation by crowding the room an hour before the appointed time in their efforts to get a good seat. At his last clinic the doctor showed a case which is not at all uncommon, but which is very untractable to treatment, namely, a case of onychia hypertrophans. This disease is a thickening and hardening of the nail matrix, generally found in women, particularly those who have to work hard. The cause is partly some general dyscrasia, usually caused by disease of the liver or kidneys, and partly some local affection. The symptoms are a gradual thickening of the nail matrix; the nail is raised and looks rough and ragged, while some are broken off, but in no case do they suppurate and slough, which diagnosis this affection from suppurative onychia and onychia syphilitica. Dr. Buckley treats this affection both locally and constitutionally; the local treatment being to dip the fingers, every night, in and out of water as hot as can possibly be borne, for at least twenty minutes, or alternately from hot to cold. The object is to get the shock and reaction. The nails are then covered as far back as the roots with a thick coating of diachylon ointment, and wrapped in lint. In the morning this is washed off, and a simple dressing applied during the day. This may have to be kept up for days and sometimes for weeks. By these means the hardened mass can be scraped off, and a healthy action set up. The constitutional treatment resolves itself into correcting any visceral derangements and giving some tonic, preferably arsenic with some of the alkaloids.

Since Whitehead of Manchester published his

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successful operation for hemorrhoids a few months ago, it has been tried several times by surgeons of this city. The operation was described by Whitehead in the *Brit. Med. Jour.*, for June of this year, with statistics of 300 cases on which he has operated. It consists in dividing the mucus membrane where it joins the skin completely around the anus and dissecting it from the muscular coats of the rectum up beyond the pile area, and cutting it off. The upper part of the mucous membrane is then drawn down and stitched firmly to the integument and so covers the denuded part (See CANADA LANCET, Sep. '87). Dr. Weir, of the New York Hospital, has performed this operation twice within the last month, and in both cases got good useful ani, with little danger of the recurrence of piles and no danger from stricture of the rectum.

At a meeting of the Otology and Laryngology Society this evening, a paper was read by Dr. J. W. Gleitsman on "The Hypertrophy of the Tonsil of the Tongue, with History of Cases." The tonsil of the tongue is the name given to a mass of lymph follicles, found in the lingual fossa, just anterior to the epiglottis; it is a ductless gland, continuous with a chain of lymphatics which run across the pharynx and connect with another collection of follicles at the pharyngeal opening of the Eustachian tube. Dr. Gleitsman believes the collection in the lingual fossa to be histologically the same as the faucial tonsils, and, therefore, calls it the lingual tonsil. However, the practical point is, that this, like all other glandular tissues, may enlarge and cause a great deal of disturbance. It may cause simply a little mechanical irritation in the throat when eating or speaking, or if it is large enough to press on the epiglottis, it causes disturbance in speech, violent fits of coughing, dyspnœa, and globus hystericus, and has been known to bring on regular asthmatic attacks. The singing voice is markedly affected, the singer not being able to use the voice as much as formerly, as long use causes pain; the notes cannot be sustained and there is often a break in them.

Dr. Jarvis, who first described this growth in 1884, thinks it is often caused from a wrong principle in teaching singing; in some of the notes the tongue is made to arch posteriorly, a most unnatural position. He found these glands enlarged in every member of a class of thirteen of a certain singing-master in this city. The diagnosis is easily made. In all cases of laryngeal irritation the upper part of the larynx should be examined as well as the interior, and if these growths exist they will be seen on the root of the tongue, in the lingual fossa, just anterior to the epiglottis. The treatment he practises is the same as for adenoid growths in the pharynx. Vienna paste, silver nitrate fused on a wire, or better than all, is the galvano-cautery. Lunar caustic should only be used when the growths are soft, but the doctor raises a warning note against the destruction of all these growths, for some of them disappear without treatment, the same as enlarged tonsils or turbinated hypertrophies.

Dr. Delavan cited two cases of very severe hemorrhage after tonsilotomy in the adult, both of which he accounts for from the fact that the tonsils contained a great deal of hard, fibrous tissue, which mechanically prevented the contraction of the divided arteries. In the discussion which followed, it was shown that tonsilotomy is contra-indicated in all cases where the tonsil is round, and even in outline and firm in consistence, which shows that it contains a large proportion of fibrous tissue. In the hemostatics suggested in cases of hemorrhage, a novel idea was brought out, namely, that the surgeon should have ready a muslin bag, about the shape and size of a small sausage, filled with a good astringent, say alum; this can be used for pressure, while there is a constant astringent being supplied through the muslin.

CANUCK.

To the Editor of the CANADA LANCET.

SIR,—My attention has been called, during the past few months, to the existence of a worm in the flesh of the codfish caught on the coast of Nova Scotia. This worm is generally found in the fleshy part of the back, near the backbone, towards the head. In a fish weighing about two pounds, caught the other day, and sold to me perfectly fresh, I discovered nearly two dozen. This parasite is found rolled up like a coil of rope, with one end (the head I presume) pointing upwards on a level with the coil. In shape it appears to be similar to the earth-worm. When alive in the flesh of the fish, its color is similar to that of the flesh; but when taken from the flesh, it assumes a reddish-brown color. The bed in which it is found is covered with mucus, and the flesh around it is apparently in-

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flamed. In length it varies from one to five inches, while it is about as thick as an ordinary darning-needle. I have submitted several specimens of this worm to the medical practitioner of this place. He examined them and finds that this worm is pointed at both ends and has a body in shape like the ordinary eel. When it is placed in a tumbler, or any other vessel, its movement is exactly like that of the earth-worm.

Even after the process of cooking, life is still clearly shown, but there is less activity than when taken fresh from the fish.

I should like to call the attention of some scientist to the subject, and ask :—Are such fish fit for human food? How can we account for the existence of such a worm in the codfish? What the worm really is, and how is it to be classed?

Perhaps some reader of the LANCET may have had a similar experience with myself. They have existed for years, because our medical practitioner remembers seeing them when a boy—twenty years ago. However, I cannot hear that any notice has been taken of the matter up to this date.

JAMES SPENCER,
Rector of Petite Riviere.

Nova Scotia, Oct. 25th, 1887.

Reports of Societies.

MEETING OF THE ONTARIO BOARD OF HEALTH.

Nov. 1st and 2nd, 1887.

After minutes of last meeting were read and confirmed, Dr. Bryce's motion, *Re* Diphtheria and Typhoid, was received as the report of the Committee on Epidemics.

Moved by Dr. Covernton, seconded by Dr. Macdonald,—That Dr. Cassidy be appointed associate delegate with Dr. Oldright, to represent the Provincial Board of Health of Ontario at the thirteenth session of the American Public Health Association, convened at Memphis, Tennessee, for November 8th of the present year.—*Carried.*

Dr. Bryce read the report of the delegates to the International Conference at Washington. The report was adopted on motion of Dr. Bryce, seconded by Dr. Covernton.

Dr. Cassidy referred at some length to the fact that Dr. DeWolfe, of Chicago, and others have found clothing from infected parts in Italy, which had passed ocean ports uninspected. He thought that local attention should be drawn to the matter. It was then moved by Dr. Cassidy, seconded by Dr. Macdonald,—That in view of the disclosures made by Dr. DeWolfe, Medical Health Officer of Chicago, about clothing from Palermo having been introduced into Chicago, thus exposing the people of that and other cities to the danger of infection, this Board would draw the attention of medical health officers in Ontario to the fact, and desire them to take the necessary steps to prevent similar dangers to those within the field of their own jurisdiction.—*Carried.*

Moved by Dr. Yeomans, seconded by Dr. Cov ernton,—That the Provincial Board of Health, now assembled, desires to draw the attention of the American Public Health Association to the rumors circulated through newspapers, to the effect that cases of cholera have been reported in the New York official bulletin as measles; and also, that articles of clothing packed in Palermo and exposed to cholera infection, have been distributed at various points in the country without having been subjected to disinfection at New York, In view of the fact that such reports create uneasiness and apprehensions of danger in the public mind, this Board requests the Provincial delegates to bring the matter to the notice of the meeting of the American Public Health Association at Memphis, on the 8th instant, in order that enquiries be instituted and the accuracy of said reports ascertained.—*Carried.*

Moved by Dr. Macdonald, seconded by Dr. Cassidy,—That the report of the Committee on Epidemics be received and adopted, and that the committee be instructed to draw up a form of regulations, to be forwarded to municipalities, in relation to Milk Supply and Milk Inspected, with recommendations for the adoption of those regulations.—*Carried.*

After some other routine business, the meeting adjourned.

Selected Articles.

UTERINE FIBROIDS AND OTHER PELVIC TUMORS.—THE CONDUCT TO THE MENOPAUSE.

A large number of the cases of uterine fibromata and analogous growths, though apparently more or less rapidly approaching from bloodlessness, or other circumstances connected with the growth, a fatal degree of exsanguination,

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are not in a condition that would justify abdominal section for either hysterectomy or oöphorectomy with or without salpingotomy. Other subjects, when candidly informed of the discouraging statistics of the one, and of the mutilation and barrenness of the others, absolutely refuse to submit to these operations, or withhold their consent until the period of even the forlorn hope they offer has passed; and yet another class with tumors of varying size, location and histology, are of an age to regard the hope offered by the approach of the menopause as a promise of ultimate relief in the decadence of vascular and trophic activity so universally recognized as an attendant on post-menstrual life.

These later cases, as may be seen in the following quotations from Keith, have good ground and encouragement for resisting both hysterectomy and oöphorectomy as well as salpingotomy, any of which operations indeed, in my own opinion, are seldom justifiable at that age, though this as it seems to me, appears to be the only period of life at which the two latter procedures have been able to claim any marked success in arresting the menstrual nisus and flow.

"To the woman with a fibroid uterus," says Dr. Keith, "who has passed the best of her years in weariness and pain, middle age brings relief, and old age may be spent in peace. Hence the difficulty in knowing how far we are justified in advising interference for a disease that troubles for a time, though it rarely kills. It is often said that the operation for the removal of uterine fibroids is in much the same position now that ovariotomy was five and twenty years ago. It is not so. It never will be so. The history of these two diseases is entirely different. As a rule, ovarian disease is a merciless one; it goes on and kills. As a rule, the active existence of an uterine fibroid is limited; it rarely interferes directly with life. When menstruation ceases, the troubles of the patient soon begin to pass away, while the tumor itself, after a time becomes smaller, and in a few years little or no trace of it may be found. The patient gets along, lives more or less comfortably, generally not even aware of its existence, and dies of something else. * * * * They have not much to gain by chancing a dangerous operation, and they may lose much, having much to lose.

"Till of late years, uterine tumors were let lie undisturbed unless when they were mistaken for ovarian cysts; but the restless surgery of to-day will let nothing alone; it has no patience for the menopause, and would attack all and sundry in some way or other, till one almost begins to think that individual responsibility has become old-fashioned and gone out of date. So far as operations for the cure of this disease have yet gone, the mortality is out of all proportion to the benefits received by the few. * * * *

"Dr. Bigelow, of Washington, has lately collected all the cases placed on record up to March, 1884. At best, this must be an imperfect list, and can only show the least bad side of the operation. Of 359 operations there were only 227 recoveries and 132 deaths, or a greater mortality than one out of every three operated on. * * * The sum of misery in the 359 operations to the subjects of them, and to their friends, is something simply incalculable. So far as hysterectomy has thus gone, it has done more harm than good, and it would have been better that it had never been."

Though I have thus quoted from Dr. Keith, as one of the highest, and perhaps the latest authority on uterine tumors, such principles as are in accordance with my own views and the objects of the present paper, it would be injustice to him to leave the impression that hysterectomy is banished from his surgery. On the contrary, though he so strongly condemns the operation in cases offering the possible chance of relief, by the limitation of the menstrul life of the subject, his record in cases forlorn of this hope—and these are his only admitted ones—has been marked by successes the most brilliant, and sometimes wonderful to contemplate. Unquestionably then, the menopause must be regarded as the great crisis in the life, activity and growth of the great majority of pelvic tumors, but especially of the uterine fibromata, and of the softer non-malignant growths of this organ. Whatever methods of management have been found to sustain the life of the patient, and in any measure to lessen the exhausting hemorrhage, or to retard the growth of the abnormity until the advent of this period of reprieve, are certainly worthy of our careful consideration. All the several classes of cases just mentioned, viz., those which cannot, those which will not, and those which ought not to be operated on by abdominal section are known—many of them—besides the burthen of the growth, to be subjected also to the most profuse, alarming and exhausting hemorrhages. Their pale and œdematous faces, their dropsical limbs, their oppressed and gasping respiration, and the tumultuous action of the feeble heart tell us, at a glance, of a stage of exsanguination almost incompatible with continued existence. In profound interest, not unmixed with alarm, we debate in our minds the momentous question: "Can she hold out, to reach the longed-for goal of her relief?" Wide observation in regard to many subjects even in the extreme condition here represented, endorses the answer given by Keith: "Even in the worst of them, the chances are that they will live on—not in comfort, certainly, some perhaps in misery—but still they will live, and not die."

Few women with uterine non-malignant and pelvic growths have applied to me in the past thirty years, and more especially where bleeding

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and atonic conditions were involved, who have not been placed with marked benefit upon the treatment herein reported. In the large majority of these cases the blood-losses were greatly diminished and a better condition of health and strength secured; in many the rapidity of the growth was obviously retarded, while in a few the diminution and final removal of the tumors seemed to be the happy result of the continued medication.

In condensed statement, I may say that the iodide of potassium in combination with tartrate of iron and potassa, and ergot in combination with quinine—these agents being persistently continued, constitute the *basis* of the medicinal treatment referred to.

At the present time, the following is the preparation used:

℞ Ferri et potassæ tart., ... ʒvj.
Syrupi, ... ʒviij.
M.

℞ Potass. iodidi, ... ʒvj.
Elixir. simplicis (vel aquæ), . . ʒviij.

M. S. Take one or two teaspoonfuls from each vial three times a day in half a glass of water, before or after meals.

In addition to the above, I seldom omit, whether the cases are marked by excessive hemorrhage or not, to place the patient upon the following combination:

℞ Quiniæ sulph., ... ʒij.
Ext. ergotæ solid, ... ʒiss.
Mix and divide in forty pills, cover with capsules.
S. Take one pill twice daily.

In the submucous variety of uterine fibroids—intra-uterine polypi—metrorrhagia is frequent and profuse, or it may be constant and in a milder flow, but the subjects are always anæmic, somewhat dropsical, with heart and lung perturbation under the least fatigue.

The indication in such cases, is not so much to check the growth, or to diminish the size of the tumor, as it is to check the hemorrhage, rehabilitate the blood and promote the expulsion of the fibroid from the uterus, that it may be removed by operation.

In this class of cases I therefore eliminate the iodide of potassium from the treatment, and place the patient on the following:

℞ Ferri et potassæ tart., ... ʒiij.
Extract ergotæ solid, ... ʒij.
Quiniæ sulphat. . . . . ʒij.

M. and divide in forty pills. Take one pill morning and noon, before eating.

Under the above treatment the tumor is expelled into the vagina in from two to six weeks, the metrorrhagia greatly diminished or arrested, the complexion and strength improved, while the patient is put in better condition for the operation, whether by ligature, ecraseur or excision. In these cases of course, the expulsive efforts of the uterus are principally promoted by the ergot, but to the quinine, besides its action as a general tonic, I attribute a material influence in giving steadiness and persistence to the uterine muscularity. Its effects also on the middle or muscular tunic—of unstriped fibre—of the arteries, is similar to that of ergot on the uterine muscle, constructed of the same kind of fibre. By this same physiological action, and its attribute of lessening the morbid supply of blood to the growth, I believe it to be valuable in checking the increase of the subperitoneal fibromata, as well as that of other tumors and infarctions within the pelvic cavity unconnected with the uterus.

The considerations heretofore presented have had in contemplation, women in the middle and later stages of menstrual life, who have been discovered to be the subject of uterine and other pelvic growths and suffering from the disturbing and exhausting result attendant upon their presence and advancement This is the period at which most of these tumors come under the purview of the gynæcologist and general practitioner. It is the period of greatest activity of the growth, of the most frequent and abundant hemorrhage, and of the greatest exhaustion and danger to the woman. From this time to the completion of the menopause, all expedients are exhausted to check the hemorrhage, to sustain the vitality of the patient, and to prop her in her staggering journey towards the goal of her relief. This is the period, too—treatment having been neglected or failed to stay her downward progress—when abdominal section with the view to oöphorectomy, extirpation or hysterectomy, can not unwarrantably, be debated; but as I think, always only as a last and desperate resort.

It is in view, as I have said, of cases in this stage of menstrual life, that I have endeavored to formulate and systematize from the records of a somewhat extended experience, a persistent course of medication and management, that may serve to sustain and guide the woman through the bight and narrows of the most perilous strait in the progress of her disease. I will here distinctly state that the treatment is not instituted with the expectation of removing the enormous growths and uterine fibroids that distend the abdomen, but for rendering them less burdensome; not with the expectation of entirely arresting or preventing the hemorrhage, but rendering it less profuse and exhausting; not with the expectation of restoring health, but for rendering disease, dire and dreadful, more endurable. I do not remember ever to have known a simple or multiple fibroma of the uterus to directly cause the death of the subject, but in the low condition of exsanguination caused by the hemorrhage and irritation of

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fibroids, I have seldom failed to realize marked improvements in the general condition of the patient, and in many cases I have observed what appeared to be a notable retardation in the increase of the growth. In several pelvic and abdominal tumors of both men and women, unconnected apparently with the uterine apparatus, I can report decided benefit to the general health and marked reduction and even disappearance of the tumor, on prolonged use of iodide of potassium in combination with tartrate of iron and potassa. Of course, there are some cases of pelvic tumors or infarctions in which, while this or something similar may be the only *rational* medication practicable, yet, no reasonable expectation of relief can be entertained. Were I to endeavor to formulate *principles* from the foregoing consideration, and from my own observation and experience, the following may perhaps be legitimately stated:

1. A large proportion of uterine fibromata and other pelvic tumors outside the ovarian cyst, are not properly the subjects for surgical treatment, either by hysterectomy, oöphorectomy, salpingotomy or excision.

2. Though these growths, especially the uterine fibroids, seldom *per se*, destroy the life of the subject, and are limited in the duration of their injurious influence, they yet impose upon the woman a prolonged period of depression, exhaustion and ill health, during which period she is liable to succumb to intercurrent invasions of disease before the establishment of the menopause, or the time of expected relief.

3. A systematic and persistent therapeutic course, rationally adjusted to the nature and condition of the disease is highly desirable.

4. From the known physiological effects of ergot in combination with the salts of quinine, and of iron, with iodide of potassium, and in view of the results above presented, we may regard such a combination as rationally applicable, during the prolonged period of hemorrhage and exhaustion so frequently marking the progress of these pelvic growths.

5. While such medication cannot be expected ordinarily to remove large fibroids, or materially arrest their advance—it exercises marked influence in diminishing the blood-losses, and in improving the nutrition and general health of the subject of such tumors; and in some rare instances, apparently in younger subjects, it results in the entire disappearance of the growth and its deplorable concomitants.

6. In view of the danger of impaction, much pain being often produced from this cause, with increase of bleeding, a womb with growing fibroids should be frequently lifted out of the cavity of the true bony pelvis, by nightly self-replacement in the knee-breast posture.—Dr. Campbell in *New Orleans Med. and Surg. Jour.*

QUESTIONS IN THE TREATMENT OF INEVITABLE ABORTION.

There are differences of opinion and also of practice in regard to the treatment of inevitable abortion, and especially of that form in which the expulsion of the ovum is incomplete. A brief discussion of some of these differences may not be unprofitable.

It is in many cases difficult, if not impossible, to know that the abortion is inevitable. If the hemorrhage be marked, and fragments of decidua are expelled, or if the ovum be felt at the os, the cervical canal having been so far dilated as to permit its descent, a conclusion often verified by the event may be made, that the pregnancy must be interrupted. And yet these symptoms do not justify the conclusion. For example, I have seen a patient at the third and also at the fourth month of pregnancy, have so profuse a discharge of blood from the uterus that a dozen napkins were required in twenty-four hours, and at times one of these napkins was saturated with blood; nevertheless, the pregnancy continued.

In general, it may be said that only in case the embryo or fetus is dead, and a free rupture of the membranes has been made, or their extensive detachment effected, can the abortion be declared inevitable. The recognition of the death of the fetus is possible if its life has been previously made known by auscultation; for, having once distinctly heard the sounds of the fetal heart, and then failing to hear them again after careful and repeated examinations, the just conclusion is that the fetus is dead. But in the majority of cases this evidence is not available, for the threatened miscarriage is present before the throbbing of the fetal heart can be heard. A free rupture of the amniotic sac certainly will be followed by abortion; whether a mere puncture with only partial evacuation of the contained fluid will then result in all cases, may be considered doubtful; for certainly not only cases of spontaneous rupture of the membranes, and also those of their puncture, in the latter weeks of pregnancy without labor coming on for some time after, have been observed. Even though the membranes have been punctured, or spontaneous rupture has occurred, the fact is in most cases not known to the practitioner. Again, it is rarely that he knows that large detachment of the ovum from the uterus has been made; while such detachment results in hemorrhage, yet, as before indicated, this symptom may occur and the pregnancy continue. There are two proofs that the abortion is inevitable, which are available in those cases in which the two essential symptoms, viz, uterine contractions and flow of blood, continue for two or three weeks or more, and these symptoms are, arrested development of the uterus and retrograde changes in the

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mammary glands. Now that the method of bimanual examination as a means of obstetric and gynecological diagnosis is so familiar to the profession, it is not necessary to more than refer to it as available for the recognition of arrest of that increase of size of the uterus resulting from the pregnant condition; in other words, if this organ ceases to grow, the embryo or fetus is dead. Again, if the enlargement of the breasts, which usually begins at the first menstrual absence following conception, has occurred, and these organs from having been full, plump and possibly the seat of occasional pain, become shrunken, flaccid and painless, it may be regarded as almost if not quite certain that the pregnancy cannot continue. Here let a word of caution be said. In some cases, by no means frequent, it happens that the breasts after increasing in size in the first months of pregnancy lessen somewhat, and remain thus only partially developed until after labor. But this fact is not frequent, and the condition of the mammæ is by no means that which is observed following the death of the embryo or fetus.

In threatened abortion we have no two remedies comparable to rest and opium; these are also invaluable in case the miscarriage is inevitable, and many observations have led to the conclusion that the pregnant woman bears opium remarkably well. By this means we lessen one of the dominant symptoms, pain, and indirectly by slowing the circulation, hemorrhage. But the means of especial value as a uterine hemostatic is hot water injected into the vagina; of course the injections should be copious, and given if the discharge be great, at frequent intervals. One advantage that this treatment presents in abortion is, that it may be employed in cases in which there is hope of continuing the pregnancy—it does not excite uterine contraction so much as it does contraction of the blood-vessels. By these injections possibly we will render unnecessary in the majority of cases the administration of ergot or the application of the tampon; nevertheless ergot and the tampon are means which may become essential in the treatment, and they are probably most efficient if used conjointly.

Antiseptic vaginal injections should be used twice daily during the continuance of the abortion.

Of course if notable hemorrhage persists in spite of hot water, opium, ergot and the tampon, the indication is plain to empty the uterus by manual or by instrumental means, following the removal of the ovum by antiseptic applications—*e. g.*, injections into the uterus of a 5 per cent. solution of carbolic acid, or of 1 to 2,000, or 3,000 corrosive sublimate solution, or swabbing the intra-uterine surface with one of these solutions, or with the tincture of iodine, or the introduction of an iodoform tampon. Here let me say a word in regard to the effort to reject corrosive sublimate as an antiseptic in obstetric practice, in consequence of mercurial poisoning having occurred in a few cases. In only two of many cases in hospital practice in which 1 to 2,000 corrosive sublimate injections into the vagina and into the uterus were employed, have I seen unpleasant consequences result; and these consequences ceased upon discontinuing the remedy. I believe if the uterus and vagina are thoroughly emptied after the injection, none of the fluid being left behind for slow absorption to occur, by following it with an injection of water that has been sterilized by boiling, no injnrious results will be seen. Nevertheless, it is advisable in all cases where corrosive sublimate solution is used, either in connection with abortion or after labor, to observe from day to day the gums, and the moment these are found red and swollen to at once discontinue the solution.

As to methods of emptying the uterus in incomplete abortion, that in which only one or two fingers, first carefully made aseptic, are employed is the best; the patient lies upon her back and the physician places one of his hands upon the abdomen to press the uterus down to the fingers of the other hand, so that they more readily enter its cavity. If instrumental means be required, my preference is for Emmet's curette forceps, if the abortion be within the first ten weeks of pregnancy; many, however, employ a blunt curette.

I hold, too, that evacuating the uterus is clearly indicated in incomplete abortion, not only by such hemorrhages as have been mentioned, but by an offensive discharge, for such discharge may fortell septic infection. Many excellent authorities, more especially of the German school, advocate immediate emptying of the uterus in all cases when a part of the ovum remains. Now the objections to this are: First, there may be a twin pregnancy, and one ovum may be expelled and the other retained until complete development is accomplished, and thus the operator in assisting one abortion makes a second one. Second, there is danger of causing a traumatism either in the dilation of the cervical canal, or by the use of the curette upon the uterine wall. Third, it should be remembered that the uterine decidua, the *decidua vera*, is not fused with that covering the ovum until some time in the fourth month, but is quite firmly united to the uterine wall; abrupt detachment of it is a violence which may produce more serious consequences than those which result from its gradual breaking down and discharge, nature's method of casting it off.

Let it be called conservatism, if anyone chooses, nevertheless my faith and practice are in cases of incomplete abortion to wait, if the os be closed, until the symptoms which have been mentioned occur—without one or both of these, no interference, but an armed expectation and the regular use of antiseptic vaginal injections. It is worthy

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to be observed that the advocates of immediate interference sustain their position by adducing instances in which continued hemorrhages, or offensive discharges, or even septic infection, followed delay in emptying the uterus. Certainly, and cases presenting such symptoms demanded earlier interference; if the practitioner had been wise enough to be warned by the first two, and proper response was made to the warning, the third would scarcely be known. The multiplication of cases of early incomplete abortion in which hemorrhage persisted for weeks, and then fragments of membranes or of placenta being removed the patient got well, do not prove that the practice of immediate interference, that is the artificial complete removal of the ovum is demanded in every case of abortion in which spontaneous expulsion does not occur. Certainly there are advantages in a prompt and perfect deliverance, but it is not exempt from dangers if violence is used in effecting it, and in some instances it may abruptly end a pregnancy which in other practice might continue to its normal termination. The advocates of immediate interference claim the best results. Carlyle has said, "Granted, the ship comes into the harbor with shrouds and tackle damaged; the pilot is blameworthy, he has not been all-wise and all powerful; but to know *how* blame-worthy, tell us first whether his voyage has been round the globe, or only to Ramsgate and the Isle of Dogs." So we would like to know the number of cases treated in this particular way prior to giving an opinion as to its value. Further, before the question can be finally settled, a sufficiently large number of cases thus treated must be compared with a like number in which no interference with the process, so far as the uterus is concerned, is made without symptoms require it. Of course at the time of the miscarriage make it complete if possible without injury to uterus—let the interference be digital rather than instrumental, unless the former fails and hemorrhage persists; but that time past and part of the ovum being retained, the os closing, I believe it better to wait until distinct call for action is given. There is a middle ground between immediate intervention and absolute expectancy; and in that ground, my faith is, the path of safety lies.

One of my most valued professional friends, an able, conscientious and distinguished practitioner, in reference to this special view of the treatment of abortion, as well as the management of labor, has written me that my methods are too artificial and I do not trust enough to nature, adding, that in a practice of fifty years—and I know that during a great part of that time his practice has been large—he has not lost a single woman as a consequence of labor or from miscarriage. I do not know, but it is quite probable that this gentleman has attended 2,000 cases of labor, for as the result of observation and of inquiries my conclusion is that the general practitioner, even if his practice be large, does not have more than an average of forty cases of confinement a year. Of course there are exceptions, some devoted exclusively to obstetric practice, or connected with maternities, or having a large *clientele* of the poor, or at least of those in very moderate circumstances, may count in the course of their professional lives three or four thousand obstetric cases. But for one who can thus number his cases, there are ten who are under the average that has been mentioned. If one were to take the extravagant and improbable statements of some few physicians who, we will suppose, guess at a number and multiply it by two so that nothing shall be lost as to the number of labors they have attended, and then make it the standard for the profession in general and for midwives, the population of this country would be increasing in such a frightful ratio that Malthus would not rest in his grave, or else there would be a slaughter of infants in comparison with which that by Herod was infinitesimal. In this department of obstetric statistics I believe there are more unfortunate mistakes than in any other.

Returning from this digression, the number of abortions attended by one who has had charge of 2,000 cases of labor will be not less than 250, or according to some estimates of the relative proportion between misscarriages and labor at term, even 600 or 700. Bush's proportion is 1 to 5.5; Whitehead's 87 out of 100, and Hegar's 1 to 8. Taking the smaller of the numbers mentioned, there certainly is a strong argument for the expectant treatment of abortion in the fact that 250 thus treated recovered.

But I do not want to urge such treatment as invariably the best, for expectation has its limits, the definition of which this paper has endeavored to present.—Dr. Theophilus Parvin, in *Medical and Surgical Reporter*.

PRACTICAL POINTS IN THE SELECTION AND ADMINISTRATION OF ANESTHETICS.

Analysis: (1) The best method of administering nitrous oxide and ether in combination or succession; (2) the prevention of vomiting during or after the administration of an anesthetic; (3) the danger of inducing general anesthesia in patients suffering from obstructive dyspnea; (4) the possibility of dangerous symptoms occurring from the exhibition of morphine or opium prior to the administration of ether or chloroform.

1. It is taken for granted that ether, preceded by nitrous oxide, is the best anesthetic for the

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bulk of cases in general surgery. The preliminary administration of nitrous oxide is especially to be recommended in muscular, alcoholic, nervous, or excitable patients. Atmospheric air should be rigidly excluded during the inhalation of the nitrous oxide; ether vapor should be *gradually and increasingly* admitted when the signs of nitrous oxide narcosis commence to appear, and, when much epileptiform movement occurs, a small quantity of air should be allowed. A portable apparatus, by which it is possible to administer these anesthetics in the manner advised, is manufactured. The sudden transition from the inhalation of nitrous oxide to that of strong ether vapor is not desirable. By the above method, coughing, excitement, inhibition of breathing, and struggling are prevented.

2. Vomiting during the administration of an anesthetic is usually to be prevented by rapidly and thoroughly anesthetizing the patient, the diet having been previously regulated. Deep narcosis having once been established, reflex acts should be carefully watched for. Among these, deglutition is often an important indicator of incipient coughing or vomiting, and if it occurred the administration should be pushed. The chances of vomiting after the administration can be lessened by the above means; in addition to this, the swallowing of mucus or blood should be prevented by keeping the patient's head upon its side. The patient should be moved as little as possible after the operation. Experiments with cocaine (in aqueous solution administered before the operation) have been made, but it is difficult to say whether it had answered its purpose.

3. It is questionable whether any anesthetic should be giving to patients suffering from obstructive dyspnea. In a case in which a large innominate aneurism pressed upon the trachea, and which was rapidly enlarging, an operation was decided upon. Previous experiment had shown that digital pressure upon the subclavian and carotid arteries did not materially increase the dyspnea. Chloroform was cautiously given. After the ligature of the carotid the breathing became feeble, and, after the other artery had been tied, it ceased and could not be restored by artificial means. It was probable in this case that the nervous mechanism of respiration, doubtless somewhat exhausted before the operation, could not be sufficiently stimulated during anesthetic sleep by the imperfectly oxygenated blood Artificial respiration was ineffectual, although, before the operation, the chest and abdominal movements were perfectly competent to maintain the due oxygenation of the patient's blood. Another case of a similar nature, and with an equally untoward result, had been reported to the author; and in future he would certainly refrain from administering an anesthetic to such patients.

4. The sedative effects which opium or morphine exert upon the respiratory system should certainly contra-indicate their employment in cases in which respiratory embarrassment or failure would be likely to occur. Professor Victor Horsley has advised the subcutaneous injection of morphine in cerebral surgery; and the injection of morphine with atropine before the administration of a general anesthetic, has been adopted by many surgeons upon the continent. The practice, however, was one which should be followed with the greatest caution, and in many cases altogether avoided. In illustration of this may be cited the following remarkable case, in which it seemed probable that the cessation of breathing which occured was partly or wholly to be attributed to morphine thus administered. The patient was a young woman who presented unmistakable symptoms of a cerebral tumor in the cortex of the brain. When prepared for operation she was semi-comatose and hemiplegic; the corneal reflex was well marked; her pulse was 90, weak but regular; her respiration was feeble. A hypodermic injection of morphine was given, and the administration of the anesthetic (a mixture of four parts of chloroform to one part of alcohol) was commenced with a Junker's inhaler. Very little of the anesthetic was needed (one drachm throughout). As the operation proceeded, respiration became more and more feeble and then ceased. It was restored by artificial means, but again ceased and was again restored. One hour and a quarter after the commencement of the operation it ceased for the third time and could not be made to return. Artificial respiration was then kept up (with occasional intermissions to see whether automatic breathing would return) for *four hours*, during which time the operation was successfully completed. After four hours, automatic breathing re-commenced, but ceased not very long after (about two hours), and the patient died. The probable explanation to be given of such an occurrence is this: the respiratory nervous mechanism, already much enfeebled, and possessing like the rest of the nerve tissues but a very limited store of energy, was rendered less capable of emitting those impulses upon which depended the respiratory movements of the patient, by reasons of the sedative drug introduced into the system. There was no reason to accuse the anesthetic; for the cessation of respiration was not like that observed in chloroform poisoning, and when artificial respiration has re-established automatic breathing in the latter condition, recovery invariably ensues in the absence of complications. The manipulations to which the brain was subjected, or the loss of blood which necessarily took place, might have exerted some influence; but from the general considerations of the case, and from the knowledge of the dangerous effects which morphine may produce in conditions

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of respiratory feebleness, the more reasonable explanation of the symptoms is by the last-named hypothesis. It is known that Cheyne-Stokes respiration can be brought about by giving morphine to etherized dogs, and this form of breathing is usually to be regarded as indicating a lessened irritability of the respiratory centers. It is therefore probable that a similar condition might be produced in human beings, and under certain circumstances might be so pronounced as to partially or completely paralyze the respiratory functions. Artificial respiration would probably be successful in such cases if persevered with for a sufficient length of time.—*F Hewitt, M. D. in Annals of Surgery.*

THE TREATMENT OF PALPITATION.

The treatment of palpitation is moral, hygienic, and medical, and the value of these stands in the order in which I have placed them.

1. *Moral Treatment.*—In the moral treatment the grand point is to impress the sufferer with the confidence that there is no instant danger from the seizure; for palpitation is fed by fear, and so little as an expression of fear by the looker-on increases the intensity of the over-action. In like manner all hurry and worry aggravate the symptom, and so, during the attack, the utmost care should be taken to avoid noise, haste, and fussiness. A gentle persuasion toward quietness, a firm assurance that the seizure will very soon pass away, and the best help of an encouraging kind is supplied.

2. *Hygienic Treatment.*—The hygienic measures for the treatment of palpitation have reference to the directions which should be given for warding off the attacks and for removing the unhealthy conditions of body which dispose toward them. In these directions it is essential to include, first and foremost, the removal of all possible causes of excitement, worry, and exhaustion, mental or physical. To this must be enjoined regular habits of life. Early hours for bed are requisite, and a continuance in bed in the recumbent position for eight hours out of the twenty-four at least is very important. During the day moderate out-door exercise, with avoidance of rapidity and of over-action from climbing steep ascents, should be specially enforced.

To the moderate open-air exercise above suggested, should be added daily and free ablution in water just sufficiently warm not to create a shock or to leave a sense of chilliness of the skin. Brisk friction and the use of a flesh brush may follow the bath with advantage. I would, however, while on the subject of baths, offer a word of warning as to the Turkish or Roman bath in this class of cases Good as that bath is in cases of disease properly selected for it, it is not good for persons subject to acute and extreme palpitation. The stimulus of the heat has caused, in two patients I have known, a severe and troublesome seizure.

Meals should be taken at regular times; at no time should a heavy meal be indulged in, and the simpler the diet the better. Some articles of diet in ordinary use should be limited. Too much animal food is bad. Light and easily-digested foods, in moderate quantities, and fresh fruits are always good. In one of my cases a trial of a purely vegetarian system of diet had unquestionably a very good result, but as different scales of diet are suitable for different persons I cannot here lay down any hard-and-fast rule. The plan I am accustomed to follow in prescribing diet is to find out from the patient's own report what articles of diet suit best, and then to use my own judgment at the time for advising the selection.

As regards drinks, there are three which, in my experience, are always unfavorable in cases of palpitation. These are tea, coffee, and alcohol in every shape. I know of no case of the kind in which tea has not proved injurious. Coffee is not so bad as tea, altogether, but there are very few instances in which coffee can be readily tolerated. Alcohol is often much craved after, but it is a most deceitful ally. A little excess of it is prone of itself to excite the over-action without any other spur, and soon after it has been removed from the body it causes a depression which favors the recurrence of palpitation, under any excitement, in the most marked degree. The quantity of fluid taken should be limited in amount; and as to quality, the nearer it comes to water pure and simple the better.

Something requires to be said about mental as well as physical food. Readings, amusements, and pastimes which keenly affect the emotional faculties are to be avoided as much as any more plainly physical forms of excitement. Whatever mental food keeps the mind awake, whatever makes the sufferer hold his breath with wonder or anxiety, is bad as bad can be. Exciting novels, plays, exercises, games of chance, should most surely be put aside. But good, pleasant, steady mental work is not harmless merely; it is useful; it prevents the mind from brooding over the bodily incapacity, and it becomes an element of cure.

Under this head of hygienic practice there is one habit, bearing chiefly on the male sex, to which I must allude, and against which it is absolutely necessary to protest. I refer to the habit of smoking tobacco, and to the use of tobacco as a luxury in every way. Tobacco is the worst of enemies to soundness of heart and steadiness of heart work. To those who are subject to acute palpitation, tobacco is so mischievous that it is hopeless to attempt to treat them until the habit

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is abandoned. On this point there must be no mistake.

3. *Medical Treatment.*—During an attack of acute cardiac palpitation, medical treatment of a direct kind can only be palliative. It is a common practice to place the patient in the perfectly recumbent position, but as this positian leads, frequently, to breathlessness and much discomfort, I never enforce it unduly. The sufferers usually find out the best position for themselves, and standing up, and even gentle walking backward and forward, commonly appear to bring relief, as if the general muscular action equalized the local over-action.

For the actual palpitation, digitalis is the only remedy I have found of any positive service, and it combines well with remedies which have a tendency to promote quickly the cutaneous and renal excretions. I usually prescribe the tincture of digitalis in five or ten minim doses, with half a fluid drachm of nitric ether, and two fluid drachms of the liquor ammoniæ acetatis. In instances where there has been prolonged sleeplessness, with palpitation, I have combined morphia, in full doses, with digitalis, with good effect, adding the narcotic dose to the formula just named.

In general treatment I am accustomed to follow, whether the heart be organically sound or unsound, the same methods as those described in my previous essay on intermittency. The organic bromides of iron, quinine, and morphia, and the mixture of iron carbonate ammonia, and morphia, are excellent remedies. The only difference in treatment, in fact, relates to the use of alcohol, which, valuable in some cases of intermittency, is less compatible in cases of palpitation.

4. *Treatment of Epigastric Palpitation.*—The rules already offered for the management of cardiac, apply equally to the epigastric palpitation. There is, however, in cases of epigastric palpitation more frequent necessity to meet dyspeptic symptoms, including flatulency and constipation, by alterative and mild aperient correctives.—Benjamin Ward Richardson, M.D., F.R.S., in *Asclepiad.*

THE ABUSES OF MILK DIET IN THERAPEUTICS.

The therapeutical employment of milk, not only has been popularized and the lay public made familiar with its various adaptations, but in the wake of the general appreciation has followed the usual exaggerations, and hence it is prescribed with little regard to the conditions properly requiring it. Under these circumstances it seems desirable to indicate the limitations of this therapeutical food, and to show wherein it may be hurtful rather than beneficial.

In certain disorders of the digestive functions, milk causes a sense of discomfort, decided uneasiness, oppression—sometimes even pain, and it prolongs the morbid condition. The cases of this kind may be grouped into two classes: those in which the casein is the offending material; those who cannot properly digest the cream or butter. We find examples of the first class more frequently amongst children, but they are by no means uncommon in adults. They are detected the more readily in early life, because the curds are rejected by vomiting, or appear undigested in the stools. Adults unable to digest casein, or who digest it slowly or painfully, have epigastric distress, heaviness and oppression for several hours after meals, stupor and disinclination for exertion coming on after an hour or two and continuing until the offending material has passed well down the intestines.

An excellent substitute for the milk when the casein disagrees is barley-water with cream. The barley-water should be carefully strained and have the density of good skimmed milk, and one-sixth or one-fourth cream added, so that the mixture has the consistency of rich milk.

Another class of subjects to whom milk is unadapted are the cases of duodenal, hepatic and pancreatic diseases, because of the deficiency in the secretions necessary to the process of emulsionizing fats, and preparing them for entrance into the lymph vessels. Fats decomposing form very irritating fat acids, and the change in the reaction of the intestinal juices is the cause of various secondary troubles in the biliary functions and elsewhere. To fit milk for use, under such circumstances, it must be skimmed, and about the time the stomach digestion is completed, aids to the intestinal digestion should be administered. Such aids are a soda alkali, and it may be, some pancreative solution to effect complete digestion of the fatty constituents.

The mere bulk of the milk is an objection to its use in certain diseases. In dilatation of the stomach, the space occupied by the necessary quantity perpetuates the disease. The reflex effects of distension of the stomach in cases of weak heart, and in angina pectoris, may not only cause distressing symptoms, but may even prove fatal. It cannot be too strongly stated that milk is a highly objectionable aliment in heart diseases, whenever the motor apparatus of the organ is diseased, and whenever its movements are readily influenced by morbid states of the stomach through the reflex channels.

In no malady, as I conceive, is milk more abused than in acute rheumatism. It is very often the chief—sometimes the only aliment employed during the whole course of this disease. Besides the objection inherent in its mere bulk, certain theoretical considerations of its nature should have considerable weight in deciding the question of

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use. The very obvious objection that milk furnishes lactic acid as a product of its fermentation, should not be ignored All the world knows the intimate relations between lactic acid and the rheumatic poison. By the introduction of lactic acid, a form of endocarditis not distinguishable from the rheumatic, is set up, and of those diabetics treated by lactic acid, a considerable proportion suffered from attacks of rheumatic fever (acute rheumatism). It is difficult, of course, to determine this point with certainty, but I have reason to believe that patients with rheumatic fever do not get well so quickly, and are much more apt to have relapses when they consume much milk during the course of the disease. Surely, sufficient reasons exist for undertaking a thorough investigation of the question. My own practice, in the cases in which I am consulted, is to advise against the use of milk as an aliment in acute rheumatism.

In typhoid fever, milk is the one food now given, irrespective of the character of the cases. Of late this almost universal practice has come to be challenged. It has been depended on, without investigating the state of the digestive functions, and quite unmindful of the effect it may have on heat production. It is often given in too great quantity at a time, or so frequently that the stomach has not disposed of one quota before another is thrust upon it. Unless the gastric juice has preserved, to a considerable extent, its power of converting the albuminoids into peptones—which we have no right to expect—the casein resists its action; hence it follows that the materials of digestion should be administered soon after the milk is taken, and to prescribe it without reference to the ability of the stomach to dispose of it is to insure increased fever and delirium, and more frequent stools. Besides supplying the means for proper digestion of the milk, attention should be given to its administration at such intervals that every portion given may be disposed of before another is permitted to enter the stomach. It is a trite observation, which is not therefore less true, that it is more important to the nutrition if some food be well digested rather than a large amount be merely swallowed.

Notwithstanding, since Donkin's first reports, milk has entered largely into the dietary of diabetics, its utility has recently come to be seriously questioned. If conversion of milk sugar into grape sugar does not take place, there can be no doubt of the value of milk in this disease, since it possesses so great a number of alimentary constituents. If, as is now asserted, this conversion does take place, the free administration of milk in diabetes, must be regarded as an abuse.—Bartholow, *in Journal of Reconstructives.*

The author of the "Ode to Bacillus," published in Nov. Lancet, is Dr. Todd Helmuth, of N. Y.

THE REMEDIES I USE IN PRACTICE.

Dr. P. H. Carson (*Kansas City Medical Index*):

For Bronchitis.—There is no combination from which I derive so much satisfaction in the treatment of ordinary "colds" as ℞. Ammonii chloridi, ʒ j; tinct. opii camphoratæ, f ʒ ss; syrupi scillæ comp., f ʒ jss. M. Sig. Teaspoonful every two or three hours, as the cough may require. If there be some fever, I add a suitable quantity of tincture of aconite.

For Pharyngitis.—As a "gargle," I derive most benefit, in acute inflammation of the pharynx, from: ℞. Potassii chloratis, ʒ j; aquæ destillat., f ʒ iij; ft. solut. et adde; tinct. ferri chloridi, f ʒ ij. M. Sig. Use as a gargle four or five times daily. Sometimes, if the inflammation be severe and accompanied by constitutional disturbances, I prescribe internally tincture of phytolacca decandra, with the happiest results.

For Lumbago.—For the relief of lumbago, I order a belladonna plaster over the neuralgic parts, and internally a mixture of: ℞. Extracti cimicifugæ, f ʒ iij; codeinæ sulphatis, gr. x; syrupi acaciæ, f ʒ ss.; aquæ, q. s. ad. f ʒ iij. M. Sig. One teaspoonful every three hours until relieved. When the pain is not severe it is best to leave the sulphate of codeine cut of the prescription.

For Burns.—There is nothing so beneficial for recent burns as carron oil: ℞. Olei lini sem., aquæ calcis, āā f ʒ ij. M. Sig. Apply to burned surface. Afterwards, if there be much suppuration, subiodide of bismuth may be dusted over the parts, making just a very thin film; if this produces much irritation, the sub-nitrate in conjunction with some mercurial in vaseline may be used. Iodoform is worse than useless.

For Conjunctivitis.—In cases of conjunctivitis, I have long since discarded any irritating applications. Nitrate of silver, sulphate of zinc, acetate of lead, only add fuel to the fire. I write ℞. Hydrargyri oxidi flavi, gr. ss; unguent. petrolei, ʒ ss. M. et ft. unguentum exactum. Sig. Apply two or three times a day until relieved.

For Anemia.—As a tonic in anemia there is nothing equal to some preparations of iron. The most eligible mixture containing iron is one which I have used for a long time without a single complaint of nausea or other gastric disturbance, consisting of: ℞. Ferri citratis (*solubl.*) ʒ jss; aquæ destillat., f ʒ ij; fiat. solut. et adde: acidi sulphurici aromatic, f ʒ iij; glycerinæ, syrupi simplicis, āā f ʒ j. M. Sig. One teaspoonful one hour after each meal. When the iron is given immediately after meals it unites with the tannic acid of the tea or other articles of diet, forming an insoluble tannate of iron—a pure ink, but not very valuable therapeutically.

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For Delirium Tremens.—In quieting the delirium of acute alcoholism, I sometimes use chloral hydrate or the bromides, but more often rely upon: ℞. Extracti lupulinæ fluidi, extracti hyoscyami, āā f ʒ ss. M. Sig. One teaspoonful every two or three hours until delirium subsides. Monobromide of camphor acts well to control the persistent insomnia in certain instances.

For Diarrhea.—In controlling obstinate cases of diarrhea there is nothing more efficacious in my hands than the old prescription: ℞. Pulv. opii, camphoræ, plumbi acetatis, āā gr. x. M, et dispens in capsul. No. x. Sig. One capsule every two hours until the diarrhea ceases. In some cases large doses of tannic acid may be used or bismuth subnitrate in combination with one or more of these three drugs; but when other remedies have failed this prescription will be found to check the discharges, particularly if there be blood in the feces.

For Vomiting of Pregnancy.—For this often intractable trouble I generally give: ℞. Acidi carbolici, gtt. ij; bismuthi subnitratis, ʒ j; aquæ menth. pip., f ʒ ij. M. Sig. One teaspoonful as often as necessary to check vomiting. If one dose be ejected, wait a few moments until the nausea subsides and then repeat. Certain cases do well on iced champagne, while others persist until dilatation of the cervix is performed.

For Sleeplessness.—When opium is contra-indicated, and there is persistent insomnia, my choice usually is: ℞. Ammonii bromidi ʒ iij; aquæ q. s. ut ft. sol.: tincturæ hyoscyami, q. s. ad f ʒ ij. M. Sig. One teaspoonful every hour or two until sleep is produced.

For Fetid Sweating.—For the fetid secretion of the axilla or of the feet, a solution of salicylic acid is excellent, or this may be used: ℞. Potassii permanganatis, ʒ j; aquæ, Oj. M. Sig. Apply to the parts night and morning.—*Amer. Med. Digest.*

MEDICAL NOTES.

Among the numerous agents used to *deodorize iodoform*, freshly pulverized coffee is useful.

"A *persistent fissure* in the middle of the upper lip is a very suspicious sign of a scrofulous diathesis."

Dr. Longstreth recommends a large-handled knife for *post-mortem operations* as less tiresome to use than one with a small handle.

Soft, thin, *waxed paper* is found to answer the purpose of oiled silk or muslin in the majority of dressings, and is very much cheaper.

It is not an uncommon thing to have the temperature of a *typhoid fever* patient rise as much as 2° when a storm is approaching, and then revert again when the storm is settled or over.

The carbolic acid solution, formerly 3%, used for washing surgical instruments in the Jefferson Hospital, has been reduced to 2%; this answers the purpose and does not affect the hands.

Prof. Da Costa recently prescribed five-grain doses of effervescing bromide of nickel in combination with iodide of potassium three times a day, for a girl, 19 years old, suffering from *epilepsy*.

A practical way to distinguish *atheromatous degeneration* of the arteries from a wiry pulse, is to place the finger lengthwise along the artery, and the difference is very noticeable. (Da Costa).

For a case of *gastro-intestinal catarrh*, Prof. Da Costa ordered broth diet and a prescription containing—

℞.	Bismuth. subn t., ...	gr. x.
	Pulv. aromatic., ...	gr. iij.
	Pulv. opii, ...	gr. ¼.
	Ft. chart. j.	M.

Sig.—Take four times a day.

A neat and convenient way to handle *corrosive sublimate* for making antiseptic solutions is to dissolve 15 grs. in f ʒ j of alcohol, which, added to a quart of water, makes 1-1000, and does not undergo chemical change if used immediately.

Prof. Da Costa has noticed what he calls an *emotional temperature* in cases, most especially women in childbed. The temperature may reach as high as 110°, and yet recovery take place. The duration is very short, only lasting a few minutes at a time.

The following prescription has been used with favorable results in general *constipation* among the patients of the out-door department of the Jefferson Hospital:—

℞.	Ext. cascaræ fluid,	
	Ext. glycyrrhizæ fluid, .	āā f ʒ j. M.

Sig.—Teaspoonful at bedtime.

Prof. Bartholow used for a long time a five per cent. solution of carbolic acid in a case of *epithelioma*, injected hypodermatically two or three times a week; not curing but preventing further growth after two surgical operations had failed to remove the trouble.

Cocaine hydrochlorate is rapidly increasing in favor as an anesthetic; a great deal of minor surgery is done without any suffering of the patient by its use, a 4 per cent. solution being the strength generally employed. Inject in and around the part; allow five minutes before operating.

Prof. Parvin treated a case of *umbilical hernia* in an infant by reducing the hernia, pinching the skin together and painting with collodion, and ordered the painting to be repeated three times a week; the truss that the child had been wearing

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acted as an irritant and had to be changed every few weeks.

The following prescription is in use in the throat department of Jefferson Hospital for general *inflammations of the throat*:—

℞ Potas. chlorat., ... ℥ij.
Tinct. guaiac. ammon., . . . f℥iij.
Mel. despumat., ... ℥j.
Tinct. cinchonæ comp., . . f℥ij.
Aquæ, q. s. ad . . f℥iij. M.

Add two teaspoonfuls to one-half glass of milk; gargle and take one swallow.

For a clinical case of *pneumonic phthisis*, Prof. Da Costa ordered the following prescription:—

℞ Digitalis pulv., ... gr. ss.
Cinchonidinæ sulph., . . gr. ij.
Opii pulv., ... gr. ¼.
Ft. pil. j. M.

SIG.—One t. d.

In combination with this, cod-liver oil and small blisters were ordered.

A pill containing the following is being used with very satisfactory results in *phthisis* by Dr. Stewart in the medical department of Jefferson Hospital. The patients in the majority of cases immediately improve very decidedly:—

℞ Iodoform, ... gr. iss.
Ferri redact., ... gr. j.
Acid. arsenios., ... gr. 1/60.
Ft. pil. j. M.

SIG.—One t. d.

A case of *neuritis*, involving the sciatic and crural nerves of one side, accompanied by loss of power and wasting of muscles, was recently presented at the Jefferson clinic, and the following plan of treatment advised:—

℞ Syr. calcii lactophosphatis, . f℥j.
Liq. potassii arsenitis, . . . gtt. iij.
SIG.—Ter die. M.

Also of ol. morrhuæ ℥j ter die.

Locally, to lessen congestion, a constant, descending, stabile galvanic current as strong as could be borne was advised to be used to the affected nerves; faradism, if need be, to exercise the muscles; and for the pain, if it became at any time necessary, the hypodermatic injection of cocaine in the neighborhood of the nerve.—*Col. and Clin. Rec.*

BONE-SETTERS AND SURGEONS.—In commenting on the recent death of R. H. Sutton, the bone-setter, who was well known in London, and especially in sporting circles, the *British Medical Journal* remarks: It is significant, though by no means surprising, that the daily press has taken the opportunity of singing the praises of bone-setters this week, to the disparagement of orthodox surgery, as far as diseases of joints are concerned. The subject, as we are all aware, has been repeatedly discussed in medical journals and before medical societies. Some of the many sources of the bone-setter's success are self-evident. The public believe in "gifts" and "inborn genius," in men who know without learning. This feature in human nature is reflected in works of fiction, where the hero is made to scribble off some masterpiece of literature, or to dash off a picture which puts the old masters to shame, all without study, his time being taken up, as the narrative usually shows, by more picturesque but less professional employments. The bone-setter is popular partly because he is believed to be a genius who has not crammed his head with Doctor's Latin. Another class of the public have some personal objections to medical men and chant the praises of bone-setters without looking into facts. There remain, however, the important truths that bone-setters have gained the confidence of hundreds of intelligent persons, and that, although it has repeatedly been shown that gross errors of diagnosis and complete failure have often attended the practice of these empirics, it is equally certain that they sometimes cure cases which ought to have been cured by qualified men already consulted. Patients with chronic articular diseases expect manual treatment, not advice. Too often they get only the latter from the surgeon, whilst the bone-setter does the work which the qualified attendant only tells the patient to do for himself, or at the most leaves it to be done by a "rubber." Thus not rarely we hear of a patient applying to some distinguished surgeon for relief from chronic synovitis of a joint, the result of a sprain He is told to rub the affected part, and perhaps some lotion is prescribed. Now it does not follow that he has the least idea how to rub the joint, and at the best, manipulative treatment of one's-self is unsatisfactory. The services of a rubber may be recommended; then, if the joint be cured, the rubber rather than the surgeon gets the credit. When, on the other hand, a patient consults the bone-setter for the same affection, the joint is dexterously wrenched after it has been pronounced to be "out," old adhesions are torn down, and permanent benefit often effected, and all this is done by the bone-setter himself at one sitting. Of course, a success of this kind inspires public confidence in favor of the empiric, who also knows when the extra services of a rubber are needed. He makes a show of doing something for the patient himself from the very first, and uses terms at random which give the impression that something definite has been done. The surgeon is consulted because he is supposed to cure with his hands. He is never above operating, so there is no reason why he should be above manipulating. When

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surgeons become as ready to rub and manipulate old sprains in the consulting-room as they are to open thecal abscesses, and to master the details of breaking down old adhesions as they now master the steps of an operation, the bone-setter's occupation will be gone.—*Gaillard's Med. Journal.*

A New Sexual Sedative, *Salix Nigra.*—J. Hutchinson, M. D., writes in the *British Medical Journal*, July 30th, of his experience with the *salix nigra*, or pussy willow, his attention having been called to the virtues of the drug by a report in the "Transactions of the Texas State Medical Association," from Dr. Paine, who prescribed it successfully in cases of ovarian hyperesthesia, uterine neuralgia, etc., and also in spermatorrhea and nocturnal pollution. His verdict upon the drug is that it is a powerful sexual sedative, similar in its action to bromide, but without its depressing qualities.

Dr. Hutchinson obtained a supply of the fluid extract, and has been employing it for some months. The most numerous class of cases in which he exhibited the drug were women of nervous temperament, in whom the nervous irritability reaches its height at the menstrual period, when, along with the general *malaise*, is added a very decided pain in one or other ovary. They also suffered from hemicrania, the pain being situated above the left eyebrow, and resembling the feeling as if a nail were being driven into the skull (clavus). Many of them, too, complained of pain under the left breast, and extending round to the back. On one or two occasions, he has noticed patients complaining of the above symptoms, and in only a moderate degree, under favorable conditions—as for example, long-continued anxiety or alcoholism—go from bad to worse, till they become hystero-epileptics. In cases of this kind, it is supposed that the centre of inhibition has in some way got out of gear, and the severity of the symptoms depends upon the amount of disturbance in this nerve centre.

In cases where the ovarian distress was the symptom for which advice was sought, as being, in the patient's eyes, the most prominent, he usually succeeded in eliciting other indications of an irritable nervous system, and placed them upon half-drachm doses of the fluid extract of *salix nigra*, three times a day. In quite seventy-five per cent. of the patients so treated, a great amount of relief was obtained after two or three days' treatment. Not only was the ovarian hyperesthesia relieved, but the nervous palpitation of the heart was abated, and the patient felt in every way stronger.

He has also given the drug in two cases of nocturnal emissions, with marked benefit. The pollution ceased entirely while the drug was being taken, and for several months thereafter. Virile power and passion were not much, if at all diminished, but the relief from the ailment gave great satisfaction.—*Boston Med. and Surg. Jour.*

The Production of Alcoholic Cirrhosis of the Liver.—At the meeting of the Society of Biology, held in Paris, July 16th, Straus communicated the results of some experiments which he had made, with the assistance of his interne, Blocq, on the artificial production in animals of alcoholic cirrhosis of the liver. His experiments pertained to twenty-four hares, into the stomach of which he had directly injected a daily dose of half an ounce of a mixture of absolute alcohol and methyl alcohol, diluted with three parts of water. Immediately upon receiving this injection, the greater part of these animals fell as if paralyzed, and for several hours they lay in deep coma. When, after the expiration of a certain time, these animals were killed, the experimenters invariably found the usual lesions of alcoholic gastritis, thickening of the mucous membrane, ecchymotic petechiæ of the surface, etc., but what especially attracted their attention was the pathological condition of the liver. This organ did not present to the naked eye any very marked alterations; it was smooth on surface as well as on section; the acini, nevertheless, were surrounded by a reddish gray line, and in animals that had been kept most of the time intoxicated for three or four months, the ultimate perilobular portal spaces were found infiltrated with embryonic cells. In hares that had been kept constantly subjected to the action of the poison for seven or eight months, the hepatic lobules were completely surrounded by a crown of connective tissue cells, and the experimenters had before them typical cases of annular perilobular and monolobular cirrhosis. —*Boston Med. and Surg. Jour.*

Cocaine in Diabetes Mellitus—Cocaine having a pacifying effect upon the brain and a most excellent remedy for the relief of polydipsia from other causes, I prescribed two drops of a four per cent. sol. every three hours, and an anti-diabetic diet.

After a few days the polydipsia disappeared and the urine was little above the normal quantity. The pruritus vulvæ was much less annoying. The itching and dryness of the skin was absent. The other conditions remained the same. I continued the same prescription, adding another for the anemia and as a tonic, viz.:

℞ Tr, opii . . . . . f ʒ j
Tr. ferri chlorid. . . . . f ʒ j

M.S.—Twenty drops three times a day in water after meals.

The patient was ordered to return in two weeks.

I saw the patient again in three weeks, when all the symptoms had disappeared. The anemia was very much diminished, and she felt "as well

as ever." The nervous symptoms had all improved and the palpitation of the heart had not recurred once. I now continued one drop of a two per cent. solution of cocaine, and the iron. After using this treatment for a month longer, the case could be called cured, as all traces of sugar were absent when I made the last examination of the urine. I have since heard of the patient, and there is no return of the symptoms.—*Med. and Surg. Rep.*

PREPUTIAL DILATATION.—Dr. de Saint-Germain says:—The accidents which sometimes attend circumcision—serious hemorrhage, partial gangrene, and diphtheria of the wound—have led me to discard this operation or to reserve it for those cases (about one in every three hundred) in which dilatation is impracticable.

Dilatation, as advocated by Nélaton and practiced by many surgeons, consists in the insertion of a dilator in the orifice of the prepuce and the gradual enlargement of the opening. I prefer a dilator having two blades instead of the three blades of Nélaton. This operation, which is completed by separating the adhesions with a grooved director and followed by daily massage, in which the gland is alternately covered and exposed, has given the most satisfactory and durable results. Ignipuncture of the tonsils may well take the place of tonsilotomy, an operation not free from the possibility of fatal accidents. The mere mention of uncontrollable hemorrhage and diphtheritic invasion of the wound makes it clear that the operation is not so free from danger as many suppose.

Krishaber has substituted cauterization, but his superficial application of the thermo-cautery prolongs the treatment indefinitely. I operate with a modification of Smith's gag, thrusting the thermo-cautery in the shape of a pointed hook into each tonsil to the dept of three-eights of an inch. The application is repeated from two to four times at intervals of eight days, when the tonsils appear evacuated and shrivelled and present only small and unimportant stumps. I have met with no accidents and have had invariable success

In view of the frequency of these two classes of cases and of the satisfactory results obtained without risk to the patient, ought we not to consider the substitution of preputial dilatation and ignipuncture of the tonsils in the place of circumcision and tonsilotomy, an appreciable surgical advance.—*Am. Med. Digest.*

BOVININE.—This preparation is a raw extract of beef and mutton, free from drugs, minerals, salts or any artificial aid to digestion. This solution gives the blood spectum very strongly and contains so much albumen (34.70 per cent.) as to become almost solid with dilute nitric acid. Of course, it is an exceedingly powerful and easily digestible form of food. Among other applications the use of Bovinine as an enema will strike every one. J. C. White, M D., Toronto, says:—"I am satisfied that Bovinine is an excellent supportive in cases of anemia or debility. I have used it this past season with much satisfaction."

NOVELISTS' MEDICINE.—Lady writers of fiction, as a rule, limit their literary eccentricities to excursions among amorphous elements of novelists' French and un-English grammar. They sometimes dose freely with poison and the dagger, but rarely venture on strictly anatomical details. The most unfortunate *lapsus calami*, however, which has come under our observation is the following: The hero, with great difficulty, has succeeded in saving the heroine from falling over a precipice. The lady has fainted and is apparently lifeless, but the hero finds, to his intense relief, "by the pulse in her *femoral* artery," that her heart still beats.—*Bristol Medico-Chirurgical Journal.*

WHENEVER YOU HAVE an inquiry about electrical appliances for medicinal use, you will never go astray in commending those made by Jerome Kidder & Co., 820 Broadway, New York. Every desirable feature of electrical methods of treatment are embraced in the varieties of instruments they manufacture. They have stood the test of time, of medical surveileance, of public observation, and to-day they lead all others in merit and sale.—*Pharmaceutical Rec.*

COLORLESS TINCTURE OF IODINE.—I find a formula in the fifteenth edition of United States Dispensatory, for making colorless tincture of iodine Equal parts of compound tincture of iodine and aqua ammoniæ mixed constitutes the formula. This must stand for twenty-four hours before it becomes colorless. I find by adding four drops of carbolic acid to the ounce, and shaking, it becomes colorless—Brewer in *Atlanta Med. and Surg. Jour.*

WE have received from Battle & Co., manufacturers of Bromidia, a certified copy of a decree of the Circuit Courts of the United States, restraining D. W. Gross & Son from manufacturing that article. In a recent number of this journal, we deprecated the piracy by which manufacturers of genuine articles are defrauded, by having cheap and worthless imitations put on the market. We do not say that in the present case the article called Bromidia was cheap or worthless for we know nothing of it, but Battle & Co., have a property right in the word Bromidia, and their rights should not be infringed.

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THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* A. J. FULTON, 303 Church St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAILLER, 23 Rue Richer, Paris.

TORONTO, DECEMBER, 1887.

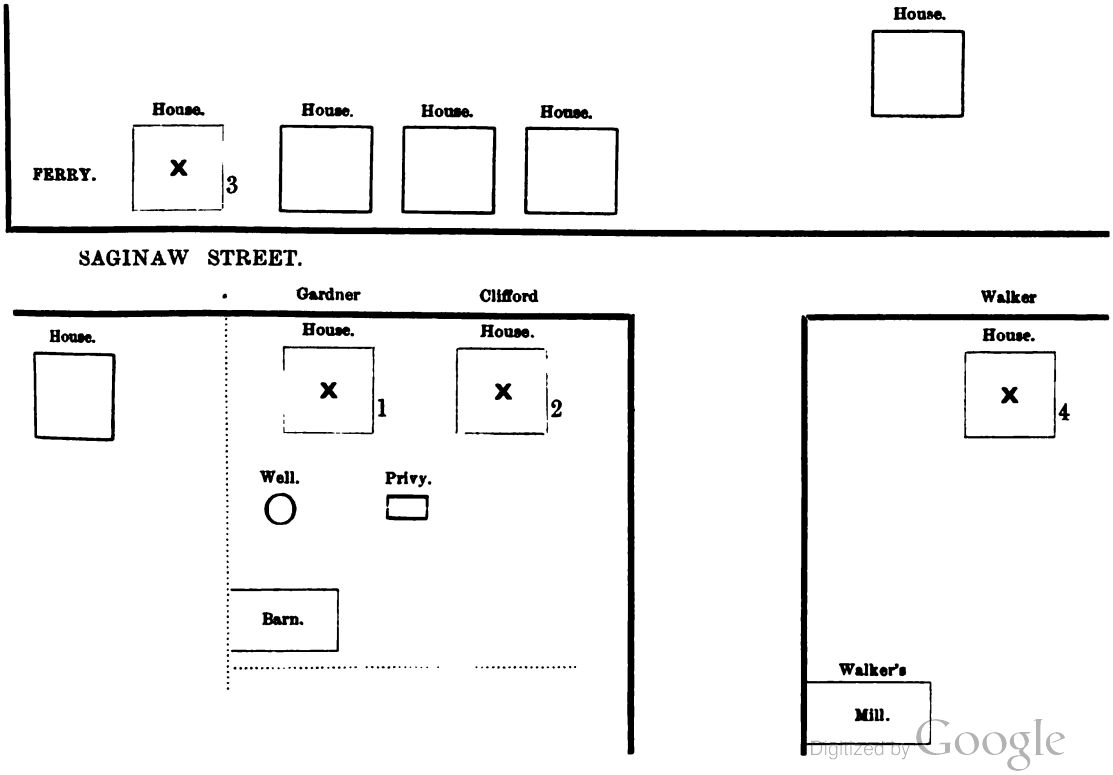
The LANCET *has the largest circulation of any Medical Journal in Canada.*

HOW ENTERIC FEVER IS SPREAD, AND HOW IT MAY BE PREVENTED.

Mr. Baker, Secretary to the Michigan State Board of Health, sends us the following instructive account, by Dr. McColl, of Lapeer, of the way typhoid fever was spread in one instance. This report may lead others to trace the spread of this important disease, and, what is of greater importance, act intelligently for the prevention and restriction of the disease, as Dr. McColl did in this instance.

"Houses marked X are the ones in which cases occurred. Nos. 1, 2, 3 and 4, order of outbreak. Cases 2, 3 and 4, traceable to water from well in rear of No. 1.

About September 1st, 1887, M. Gardner, railroad employé, came from the south sick with fever to his father's home, No. 1 on Diagram. His case was supposed to be malarial. No care was exercised with stools in the way of disinfection, but they were thrown into privy vault in rear of house, and in close proximity to well. Wash water was thrown on the surface of the ground, which was very dry at the time. About 7th or 8th September, a copious rain fell and soaked the sandy soil; and on the 14th, Wm. Gardner and wife, father and mother of M., and E. D. Gardner a brother (who was a student in my office), and who boarded at home, were attacked with fever. On this day I got home from Washington, and found four of them down with a severe type of typhoid fever, and in two weeks M——'s wife and child were attacked; also a child, across the



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street at Terry's, who had used water from the Gardner well. About the same time, three cases occurred in the Clifford house south of Gardner's, who also used water from the Gardner well. None of the people from either of these houses were in the Gardner house. In the Walker house, still further south, one case has occurred, and I was at a loss to account for this case till a few days ago, when the young man said that at the mill where he was working, they had used the Gardner water for a few days, owing to disarrangement of the pump at the mill. Two others of the mill hands —Anderson and Lester—who used the same water, were attacked about the same time. Lester is now convalescent. Anderson is dead, as also the child of Terry's. When I took charge of the cases I ordered the discontinuance of water from the Gardner well, and the disinfection of the stools; and no new cases are now reported. People who assisted to take care of the Gardner and other families, and who use water from other sources have not been attacked. Clearly, M. Gardner brought the fever home, the well became infected after the first rain from slops and privy, and the other cases got their seed from the water."

The above is of extreme interest and importance to the profession just now when typhoid is so prevalent, especially in country districts and small villages. There is nothing new in it, nor are we exaggerating when we say that not one medical man in a hundred doubts that the disease is always spread by seed from the bodies of patients infected, in the vast majority of cases through the drinking water used. But it will perhaps call anew their attention to the necessity of exercising the most scrupulous care in the disinfection of typhoid, excreta, and so for as is possible, of educating the laity to understand how the disease is propagated, so that they may act intelligently in concord with the medical attendant. It is not always easy or even possible to trace the seed, but if more attempts in that direction were made, and the results when clearly made out, explained to the people, a powerful factor would be introduced for the prevention of epidemics. The attendant may give careful directions, but unless those who have charge of the patient are made to understand the *reason* for all the necessary precautions, some old woman who has the reputation of knowing a good deal about sickness and nursing, may render all the Doctor's instructions valueless, by stating that she never saw such measures taken, etc.

TRINITY MEDICAL SCHOOL ANNUAL DINNER.

The eleventh annual banquet of Trinity Medical School was held at the Rossin House on the night of the 10th inst., and was one of the most successful that have ever been held under the auspices of that institution. The chair was taken by Mr. D. M. Campbell, of St. Thomas, and the vice-chairmen were Messrs. Johnston, Uren, and Sutherland. Among the invited guests who were able to be present were Bishop Sullivan, Revs. G. M. Milligan, D. J. Macdonnell, Dr. Thomas, Hon. G. W. Allan, Col. F. C. Denison, M. P., W. S. Lee, P. Hughes, Drs. Carlyle, Daniel Clark, Caniff, O'Reilly, McFarlane, Buchan, Graham, Ryerson, Stark, as also the whole faculty and staff of lecturers of Trinity.

The scene, when the whole party of students and guests sat down to partake of the good things prepared by mine host, Mr. Irish, was very impressive, and one which will be long remembered by the students present. The dinner was excellent and the utmost good feeling and harmony prevailed while the inner man was being satisfied. Letters were read from Sir Alexander Campbell, Sir John Macdonald, Premier Mowat and others expressing regret at their inability to attend the banquet. The speech of the chairman was exceptionally good and was listened to by all present with marked attention and interest. The fame of Trinity, her graduates, undergraduates and faculty did not lose anything by the manner in which she was represented by the eloquent speaker, who expressed the hope and indeed the conviction that she would long stand in the vanguard in the furtherance of medical science. The Glee Club was in excellent form and interspersed the proceedings with some new college songs, which while they may not have awakened the same fond memories in the minds of the veterans who occupied seats at the board as "Litoria" or "Old Grimes" might have done, were a delightful change. It was remarked that the speeches from the vice-chairmen and representatives of the various years were unusually good, perhaps because these gentlemen said what they had to say and stopped.

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The loyal toasts were enthusiastically honored in cold water. The Dominion Parliament and Local Legislature were responded to by Senator Allan and Col. Fred. Denison. Dr. Caniff replied for the Mayor and Corporation. Dean Geikie replied for the faculty, and the toast of "Sister Universities" was responded to by Senator Allan, Rev. G. M. Milligan, Dr. McFarlane, Mr. Turnbull, Dr. Kennedy (McGill, Montreal), Mr. Horsey (Royal Military College, Kingston), Mr. McDonald (London), Mr. Houston (Trinity) and Mr. Lea (Toronto). "The Sister Professions" was responded to by Bishop Sullivan.

The Dean, in response to the toast, "Trinity, her graduates and undergraduates," gave as is his wont an interesting and instructive resumé of the position Trinity occupies among the medical schools of Canada to-day, and pointed out that she had attained to that position by thoroughness in her course of instruction, and a genuine desire to do the very best that circumstances permitted to further the interests of medical science and of her alumni. He was confident she would "go on conquering and to conquer."

The representatives from McGill, Queen's and the Western were all well received, and showed in what respects their several institutions lead the van in medical education.

Dr O'Reilly responded for the Hospital, Dr. Graham for the press, and Dr. Bingham for The Ladies. The meeting broke up at an early hour, after an extremely pleasant evening, and by far the largest medical banquet ever yet held in this city.

LENGTH OF MEDICAL COURSES.

The two years' system seems to be the prevailing one in the United States. This needs no comment, but we quote as authority, and as placing the matter tersely and forcibly, the following extract from a letter by Dr. A. B. Palmer to the N. Y. *Med. Jour.*:—"The mass of students in the medical schools of New York and of nearly all the cities in this country attend only two sessions of not more than six months each; and during each six months the whole field of medical science, including anatomy, histology, physiology, pathology, chemistry, and materia medica, as well as what are called the *practical* branches of practice of medicine, surgery, obstetrics, diseases of women and diseases of children, and the various specialties, is attempted to be traversed. Now, it is not within the bounds of the human capacities or of the natural possibilities that this should be accomplished, and much less that, after this, there should be time, strength, and interest for bedside instruction, however clearly and skilfully such instruction may be presented With all these subjects on their hands and an examination upon them all, however lax, before them, students will not and can not in any proper sense give attention to bedside observation and instruction. This is too apparent to require any more than the simplest statement."

We are better off in Canada, comparatively few of our graduates taking even a three years' course, the great majority putting in four sessions of six months each. There have been, of course, even here in Ontario, occasionally instances in which men have got their degrees in less than even three years, but such cases are few and far between. But we believe that our Councils should be more strict than they are, and that nothing less than the four years' course should be accepted. The writer above referred to goes on to show the importance of *clinical* work, and at the same time the impossibility of getting even a fair share of such work with anything less than a four years' course. We have been somewhat handicapped in this direction in Canada, owing to a want of material, but that state of affairs is rapidly passing away, especially in the two larger cities. In Toronto, by a scheme arrived at by the faculties of the two medical schools, who work together in this branch, a pretty thorough clinical course is given, and it will be a student's own fault if he does not get a very fair practical knowledge of his profession. The arrangements for such study are really good, and no pains is spared by the management of the hospital to aid students in every way possible, and at the same time to protect the interests of the patients. A very large hospital is not necessarily a good one for purposes of study. It will of course present a larger number of rare and strange cases, but with these the general student need not, in his own interest, have much to do. If he obtains during his college days a good practical knowledge of every day.work, it is all his time will allow and this may be obtained at any fair-sized hospital

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where clinical instruction is properly given. The new scheme in Toronto Hospital seems to be giving satisfaction to the students generally.

BACTERIA IN RHEUMATISM.

The question as to the aetiology of rheumatism is of great importance, and much interest has been taken in experiments and investigations towards its settlement. Lately, Dr. Alfred Mantle in the *Br. Med. Jour.*, argues that, since certain bodily conditions are favorable to the development of these three diseases, rheumatism, scarlatina, and erythema nodosum, we should expect to find the real cause of rheumatism to be bacterial, or essentially the same as, say, scarlet fever. Dr. Mantle set about his investigations apparently convinced of the truth of the above views. He took, with the greatest precaution as to antisepsis, a drachm of serum from the knee-joint of a patient suffering with acute rheumatism, and with this serum at once inoculated a number of sterilized tubes of gelatinized meat infusion, and in every tube the result was a copious growth. He discovered two kinds of bacteria, a micrococcus and a small bacillus. Under the microscope the blood and serum showed micrococci as single cocci or pairs, and in acute cases zoogloea masses; in addition, small, short, thick bacilli were also seen, either single, in pairs, or in colonies. These bacteria were readily stained with methyl-violet, or with fuchsine.

In one case of gonorrheal rheumatism, bacteria were found in the blood only, while in two cases of purpura rheumatica none were discovered. They were, however, found in both chronic rheumatism and rheumatoid arthritis. The question is then put, whether the chemical products of these bacteria may not be lactic acid, which would thus form the chief ptomaine of the disease. The writer says he found that he was able to produce lactic acid fermentation in sterilized milk, by making cultivations of the bacilli of rheumatism, amygdalitis, erythema nodosum and scarlatina.

WE are pleased to notice that Dr. Hetherington, of St. John, N. B., has been lately elected a fellow of the British Gynecological Society.

THE TEMPERANCE LEAGUE.

One of the prominent features of University and College life at the present day, is the tendency on the part of students not to be satisfied with the attainment of scientific and technical proficiency, but to go beyond this and strive to benefit their fellow-students both morally and spiritually. With this object in view, there was established in November, 1886, a Temperance League of the Medical students of Toronto, the object of which, as stated in the constitution, is "the promotion of the temperance cause among the students." No small success crowned the efforts of the committees, for, when the League was only four months old, there were already enrolled 165 total abstainers. It is hoped that this number will be considerably increased during the current academic year, and the newly-elected committee are already at work endeavoring to raise the League to that high standard of growth and development which it must soon attain.

The following officers were elected at the meeting in October, 1887:—Hon. Pres., Dr. Powell; Pres., W. H. Smith; 1st Vice-Pres., M. C. Dewar; 2nd Vice-Pres., J. J. Broad; Sec.-Treas., L. F. Barker; also four representatives from Trinity School, and four from the University of Toronto Medical Department. Two public meetings will be held, one before and one after Christmas. By attending these, the members of the profession will show their sympathy with a movement calculated to raise the status of the medical student in the community, and do good not only to the individual, but to the profession at large, and through it the whole population, wherever medical men shall be found willing to advocate the principles of temperance in the fullest and truest sense of the term.

PREVENTION AND TREATMENT OF PUERPERAL FEVER.—As expressing the most recent views held on this subject, Dr. T. More Madden, of Dublin, in a paper read before the late International Association at Washington, gave the following instructions (*Maryland Med. Jour.*) as to precautionary measures.

1. The most scrupulous attention to puerperal hygiene. 2. The preparatory treatment of the patient—suitable nourishment, fresh air, and ap-

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propriate tonics—of primary importance. The author ordered a mixture of potassium chlorate, iron and quinine, to be taken during the last couple of months of gestation, and he has never seen puerperal septicemia in a patient who had been thus treated before her confinement. 3. From the first day after delivery until convalescence has taken place, the uterine cavity as well as the vagina should be daily thoroughly washed out with water, as hot as may be well tolerated. Carbolic acid and rectified spirit of turpentine may be added, while corrosive sublimate is unreliable and dangerous. 4. He does not use a siphon syringe, but employs More Madden's irrigator. 5. As a general rule, liquor creasoti (B. P.) should be administered two or three times daily in full doses. This may be advantageously combined with the tincture of the chloride of iron. 6. The prevailing type of puerperal fever is of a distinctly remittent typhoid character, and should be primarily treated by appropriate general stimulants and nutriments, as well as by attention to the removal of all septic matters from the uterus, in the way already pointed out. Turpentine, iron, quinine, ergot, and opium, are the only medicines that deserve consideration. Turpentine, the most important, may be exhibited per os, or per rectum, or by the skin. Turpentine is stimulating, depurating, increasing the elimination by the skin and kidneys, and arrests the development of micro-organisms.

THE PRACTICAL USE OF BACTERIOLOGY was illustrated lately, says the *Med. Rec.*, in the following way:

"An Italian steamer arrived loaded with immigrants. There had been no cholera on board, but, as the vessel reached this port, a suspicious case of diarrhea occurred in a child. The symptoms were not perfectly typical of cholera. Some of the dejections were taken, and sterilized tubes were inoculated and taken to the Carnegie Laboratory in this city. It would take four days to develop the cultures, and the question arose whether the steamer should be delayed for that period of time. It was finally decided to do so. The cultures developed in the way charcteristic of Asiatic cholera, and the diagnosis was made. Subsequently other cases of cholera appeared and the culture-diagnosis was abundantly confirmed. But no more striking example of the utility of scientific studies could be furnished than the one referred to."

ROGERS' GROUP OF STATUARY.—The present group of John Rogers, is one well suited to our Christmas and New Year festal season. The title is "A Frolic," or the "Old Homestead." The representation is the time-hallowed sport of "blind man's buff," and the scene chosen is that of covering the eyes of the lady of the house. To those who have, in past years, patronized the artistic productions of Rogers, no commendation will be necessary, and we think those who now, for the first time, become purchasers, will be strongly inclined to repeat their orders. Catalogues may be obtained by addressing John Rogers, 860 Broadway, New York.

SANTONIN IN AMENORRHEA.—Dr. Walter Whitehead, Surgeon to the Manchester Royal Infirmary, speaks highly *(Manchester Lancet)* of the action of santonin in bringing about the re-appearance of the catamenia. He discovered it accidentally, having prescribed it for worms, and having learned that its use was in one case followed by the flow, he, by what he calls "association of ideas," prescribed it again and again with the happiest results. He has had very beneficial results in chloro-anemia, "subordinate to anemia." He orders it in ten grain doses for two consecutive nights, to be followed by a saline (Seidlitz powder) in the morning.

"MEDICAL SCIENCE."—This new medical journal, which put in its first appearance in November, is under the joint editorship of Drs. Bryce, Nattress, Strathy and Nesbitt. From a perusal of the introductory article, we should conclude that there is not only a good deal of poetry in the composition of the editors, but also a large amount of erudition. The journal is well printed and presents a neat appearance. We wish our brother editors all success in their new undertaking.

FOR RENAL HEMORRHAGE, Bartholow says the following is extremely useful:

℞ Ext. Ergotæ fl.,
Tinct. Krameriæ, . . . āā ʒii.
Sig.—ʒi every hour or two.

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New Caustic Paste.—The following *(Med. Rec.)* promises well: Powdered starch 37 parts, wheat flour 112 parts, bichloride of mercury 1 part, dried chloride of zinc 110 parts, croton chloral 10 parts, pure iodol 10 parts, bromide of camphor 10 parts, crystallized carbolic acid 10 parts, all to be mixed up in a glass mortar, the ingredients being well pulverized separately, and gradually add to the whole the quantity of distilled water necessary to obtain a homogeneous paste, which keeps in a perfect state of preservation for an indefinite time. When required to be used the quantity necessary should be pressed in the hand previously moistened, and the paste could then be pressed into any shape or form. The following advantages are claimed for this preparation: 1. Moderate pain without any general reaction. 2. Production of an eschar which is hard and well limited, detaching itself quickly or allowing itself to be easily removed with a sharp instrument or by scraping. 4. Marked alterative and antiseptic action. 4. Powerful hemostatic. 5. Easy to be manipulated. 6. This caustic not being fusible, nor deliquescent, may be easily applied to any part, where it may remain from 6 to 24 hours, according to the intensity of action the surgeon may wish to obtain. 7. The eschars fall off in a few days.

The New Anesthetic.—In our last number we gave a note of *Gleditschine*, the new alkaloid of the tear-blanket tree, which was said to be a rival to cocaine. It appears, however, that there was some fraud connected with it, the alleged alkaloid containing cocaine and atropine with which it had been adulterated. A good deal of controversy has taken place on the subject, and Dr. Claiborne, on whose authority we believe the original report was made, has not stated definitely what his opinions on the matter are. The matter will soon be settled by examination by manufacturing chemists and others, of leaves which cannot have been tampered with. The ones used in the former trial are said to have been soaked in solutions of cocaine and atropine.

Treatment of Coccyodynia by Injection of Pure Carbolic Acid.—Dr. Illingworth, writing to the *Prov. Med. Jour.*, says he has cured cases of coccyodynia in women by the above method. He had tried Sir J. Y. Simpson's tenotomy operation for isolation of the bones, producing only temporary relief to the patient. He injects six minims of the pure acid into the most tender part, having first smeared the adjacent parts with olive oil. This gave instant relief for ten days, when the operation was repeated. The pain did not return for fourteen days, when a third injection completed the cure. The only drawback was a small fistulous opening which remained; this was easily healed.

Oil of Turpentine as an Antiseptic.—Recent researches by Hohlmfield *Fortschritte der Medicin* go to show that oil of turpentine is of small value as an antiseptic. It requires to be employed for a long time and in large quantities, to exert its germicide power. This is contrary to the generally accepted idea, and it is well to be borne in mind. Many good authorities, among them the late Angus Macdonald, of Edinburgh, have upheld this drug as an antiseptic agent, but it would appear that it is of value only when nothing better is to be obtained.

British Diplomas.—The following Canadians have recently been admitted to the L.R.C.P. & S. Ed., and L.F.P. & S., Glasgow: J. D. Thorburn (Toronto), D. Mitchell, E. Clouse and A. Thompson (Trinity). It is remarkable that at this examination, out of forty-eight successful candidates only four or five are Scotchmen; the remainder hailing from all parts of the globe where English is spoken. It may also be noted that our Canadian graduates have either given London a wide berth, or have been in what plucked candidates call "hard luck."

The Crown Prince.—The growth in the Crown Prince's throat is cancerous, and is situated just below the left vocal chord. There is said to be a slight growth beginning on the right side which will preclude the operation of partial extirpation of the larynx. It is said the Prince will not consent to total extirpation, so the only remaining operative measure is tracheotomy, which may give him a margin of a year or two of life.

Nitro-Glycerine in Suspended Animation.—An interesting case is reported in the *Sei-i kwai* medical journal of Japan, of the resuscitation of

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a woman apparently dead by the hypodermic injection of nitro-glycerine, in a case of collapse after child-birth. The doctor in attendance injected ten drops of a solution of nitro-glycerine (strength not given) into a vein. She made a good recovery. It has been suggested that this drug be used in cases of overdoses of chloroform and shock from surgical operation.

PRECAUTIONS IN CHANCROID.—Besnier (*Rév. de Thérap.*) enjoins the following precautions in the above disease:—The contact of urine with the chancroid should be avoided, as suppuration is then favored. After mictruition the chancroid should be washed with a solution of boric acid and covered with a protective ointment. The pubes should be frequently bathed with soap and water, and a pomade of boric acid, one-tenth per cent., thoroughly applied. If a bubo occurs, the parts should be shaved, and collodion applied.

PROCESS OF PETRIFYING ANIMAL BODIES.—The means of petrifying animal bodies was discovered (*Lancet*) by Dr. Massedaglia in the early part of this century. When he died he left a description of the method in a sealed packet to his lawful heirs. No heirs came forward till quite recently so that the secret may now be expected to be revealed. It it is said there are some bodies of animals, petrified by the original discoverer, in the Museum of the University of Padua.

CORONERS.—Robert James Lockhart, M.D., of Hespeler to be an Associate Coroner for Wellington.

THERE are in London three hackney coach drivers, and one stage driver, all over eighty years of age. Only those who have seen the crowded thoroughfares of the modern Babylon can appreciate fully what the above statement means.

MR. SAVORY, F.R.S., President of the Royal College of Surgeons of England, and Senior Surgeon to St. Bartholomew's Hospital, has been appointed Surgeon Extraordinary to Her Majesty, in the place of Richard Quain, deceased.

SHE KNEW.—Helen: "Mamma, what is a *casus belli*?" Mother: "My child, never speak of anything so indelicate! It is the Latin for stomach-ache."

Books and Pamphlets.

CYCLOPÆDIA OF OBSTETRICS AND GYNECOLOGY. Wm. Wood & Co.

In consequence of the painful event which rendered necessary new arrangements for continuance of the publication of the LANCET, an accumulation of four of the volumes of the above series has resulted. We now have before us the 6th and 7th, and the 9th and 10th vols. The two former, by Drs. Hegar and Kaltenback, have been edited by Dr. Grandin. The subjects treated of are the morbid affections of the ovaries, and their therapeutic and surgical treatment, in vol. 6th; and operations on the uterus, vulva, perineum, vagina, etc., in vol. 7th. The wood engravings number no less than 248, presenting an instructive representation of both the normal and the morbid anatomy of the parts treated of, and an arsenal of gyneco-surgical munitions and devices which cannot fail to impress the neophyte in this branch of medical art, with the conviction of its vast amplitude, even now, when it is yet but in its infancy; and it may go without saying, that the fiscal returns from so large an investment must be very respectable.

Volume 9th, by Dr. Gusserow of Berlin, is devoted to the diseases of the mammary glands and the new growths of the uterus, and volume 10th to "diseases of the female urethra, bladder and vagina," by Dr. Winekel, of Munich. The same editor, and of course translator, has laboured in all the four volumes, and he has done his work in a very creditable manner. It is now beyond question that the young practitioner of the healing art should give serious attention to those maladies which are peculiar to the weaker sex; indeed, the senior members also might benefit by the study, for it is well known that the field is one of rich soil, and gives abundant returns.

The age has passed away, though it is not long since, in which the entire code of obstetrics and the corporeal troubles of our grandmothers could be squeezed into a single volume, or even the tail end of one. If the ailments of the sex were then as multitudinous as they now appear to be, perhaps the bliss of ignorance was alike comfortable to the physician and to his trustful patients. The completion of the Wm. Wood series of 12 volumes must convince the young, although hardly all the

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aged, that there was dense darkness in the past. Let us hope that the light now bursting on us is devoid of illusory safraction, and that it will reach our centres of vision free from chromatic aberration. Medical science is now bounding forward in seven,leagued boots. To halt in the march, is to fall helplessly and hopelessly into the rear, and to lose all chance of sharing in the booty. So, young men close up your ranks, keep your dress'ng, and let *forward* be the word. *Sic itur ad astra.*

Differential Diagnosis; a Manual of the Comparative Semeiology of the More Important Diseases. By F. de Haviland Hall, M.D., Assistant Physician to the Westminster Hospital, London. Pp. 255. 1887. Philadelphia: D. G. Brinton. Toronto: Carveth & Co.

This is the third American edition of the work founded upon Dr. Hall's *Synopsis of the Diseases of the Larnyx, Lungs and Heart.* The plan adopted by Dr. Hall has been extended to embrace all the more frequent and important diseases. The present edition has been revised and extended by Dr. Frank Woodbury, and is now a complete work within the limits which it aims to cover. The trend of scientific and even of literary education seems to-day to be in the direction of tabulated knowledge, and more or less towards the getting up of facts for the purpose of passing examinations. This is certainly to be deprecated, and used in such a way this book would be not only useless, but harmful. Nevertheless, it will be of great use not only to the practitioner, but to the student in comparing the semeiology of diseases, and will save many a weary hour in making comparative tables for such purpose. It is complete and well arranged, and we can recommend it to the busy practitioner and over-worked student.

A Practical Treatise on the Diseases of the Hair and Scalp. By George Thomas Jackson, M.D., Instructor in Dermatology, in the N. Y. Polyclinic, etc., etc. Pp. 326. $2.75. New York: E. B. Treat. 1887.

The first 60 pages of this useful work treat of the anatomy, physiology and hygiene of the scalp and hair. Part two, treats of the essential, and part three, of parasitic diseases of the hair. In the concluding section are discussed those diseases which are secondary to diseases of the skin. The work is well written, not cumbersome, and not too scientific for the general practitioner, to whom it will be valuable as setting forth concisely the latest ideas on the subject, as well as giving simple and practical methods of treatment.

The Medical News Visiting List for 1888. Philadelphia: Lea Bros. $1.25.

We have just received from the publishers a copy of the above. It is greatly improved and is deserving of the highest commendation. It is a companion which will be found of more than ordinary use, containing, as it does, an almanac, ordinary and metric system of weights and measures, poisons and antidotes, some remedies not yet in general use, etc. We have only to say that to fully appreciate the value of this book it must be seen.

Physician's Visiting List for 1888. Philadelphia: P. Blakiston, Son & Co.

This is quite up to the usual merit of this annual work, and indeed has much new matter to recommend it. The publishers have added, Aids in the diagnosis and treatment of the more common superficial ocular affections; a Diagram showing the eruption of the milk teeth, by Louis Starr; a Posological Table from Guy's Hospital Pharmacopeia; and have retained all the useful information found in previous years' lists. Different sizes are published, that for 25 patients per day or week being $1.00; interleaved edition, 25c. extra. The binding is durable, and altogether the book is invaluable to the practitioner.

Transactions of the Association of American Physicians. Second Session held at Washington, D.C., June 2nd and 3rd, 1887. Vol. II. William Osler, M.D., Recorder, 1502 Walnut st., Phila.

In addition to the books already on our Special Club List, we have great pleasure in supplying the "Cottage Hearth," a worthy monthly periodical, with the Lancet at $3.50 per year. For special rates see advertising pages.

Researches in Electro-Alotropic Physiology; Uses of Different Qualities of Electricity to Cure Disease. By Jerome Kidder, M.D. Book of 111 pages, sent free upon application. Address, mentioning this journal, Jerome Kidder Mf'g Co., 820 Broadway, N.Y.

A useful pamphlet, containing selections from periodical medical literature and specific directions for the use of electricity as a therapeutic agent.

Births, Marriages and Deaths.

At New Westminster, B.C., Dr. Charles Newland Trew, aged 49 years.

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THE CANADA LANCET.

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Original Communications.

ON THE NECESSITY FOR A MODIFICATION OF CERTAIN PHYSIOLOGICAL DOCTRINES REGARDING THE INTERRELATIONS OF NERVE AND MUSCLE.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT. *

For some years past I have endeavored to bring to the notice of the profession a view of the interrelations of nerve and muscle—more especially of the vaso-motor nerves and the arterial muscles—which is entirely at variance with what is taught in our physiological text-books. I should be unable to find any excuse or apology for attempting so bold a task, were it not that the proofs which I have to advance are drawn entirely from the authentic storehouse of physiological research. While the facts to be here advanced are the results of observation by the great masters in this department of science, I hope to be able to show, conclusively, that the inferences or interpretations placed upon these facts are in some instances erroneous, and ought to be modified or reversed. In the examples now to be cited of an erroneous interpretation of authentic experiments, the idea evidently dominating the physiological mind was that a stimulus from nervous energy is necessary to induce muscular contraction. As a corrollary to this idea, of course, it followed that when the motor nerve supplying a muscle was cut, or paralyzed from any cause, the muscle thus deprived of nerve influence was rendered incapable of displaying its contractile power. That such an idea was apparently justified by the behaviour of the *voluntary* muscles is undoubtedly true; but not so in regard to the non-striated or involuntary muscles of organic life, which have been pronounced by physiologists to be paralyzed and powerless, at the very moment that the observers saw and recorded the palpable evidences of their more or less active contraction. In fact, so far from the current teaching of physiology being true, as regards the relations of motor nerves to involuntary muscles, the very reverse is true; the actual fact being that *muscles of the involuntary class, as a rule, contract, not when stimulated by their proper motor nerves, but when these nerves are cut, or are paralyzed, or dead.*

THE ŒSOPHAGEAL AND GASTRIC MUSCLES.

To come now to the facts. The statement continues to be repeated in each succeeding text-book on physiology, that section of the pneumogastric nerves (vagi) is followed by paralysis of the œsophagus and stomach. Now, on the theory uppermost in the minds of physiologists—referred to above—the œsophagus *ought* to be paralyzed here, and to be reduced to the condition of a mere flaccid tube. But that such is not the case, is evident from the fact that after the operation, food and drink fed to the animal, "in a few moments are suddenly rejected by a peculiar kind of regurgitation" (*a*). It needs no argument to prove that the sudden rejection of ingesta, in the manner stated, so far from being an evidence of paralysis, is really a proof of active contraction in the muscle. But it is said that sometimes the ingesta are detained in the œsophagus for a time, and, "owing to paralysis of this canal," are not conveyed into the stomach (*b*). Dr. W. B. Carpenter, F.R.S., refers to this by stating that "if the pneumogastric be divided in the rabbit, on each side, above the œsophageal plexus but below the pharyngeal branches, and the animal be then fed, the food is delayed in the œsophagus which becomes greatly distended" (*c*). Now the pharyngeal branches supply the upper part, and the œsophageal plexus, the lower extremity of this muscular tube. Mark what follows on section of the vagi between these two! The upper part of the œsophagus, whose nerves are intact admits the food and drink apparently in a normal manner, while the lower part of the tube, which has been deprived of nervous influence, contracts upon itself, and so lessens the calibre of the "canal" as to arrest the further passage of

* Read before the Physiological Section of the North International Medical Congress, held in Washington, September, 1887.

(*a*) Dr. Dalton's Phys., p. 473. (*b*) Ib.
(*c*) Hum. Phys., 5th Amer. Ed., p. 404.

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the superimposed ingesta, as a consequence of which the œsophagus "becomes greatly distended." Whether the ingesta are thus forcibly detained or "forcibly ejected" would appear to depend on the point at which the vagi are cut. But in either case, the result, so far from being a proof of paralysis, really bears evidence of activity of the muscle. And this is confirmed by the observation of Dr. M. Hall, that "the simple contractility of the muscular fibre [of the œsophagus] occasions a distinct peristaltic movement along the tube *after its nerves have been divided*, causing it to discharge its contents when cut across." [Italics mine.] (*a*).

Dr. Burdon Sanderson expresses the idea uppermost in the physiological mind, in stating that after section of the vagi "the muscular fibres of the œsophagus are paralyzed, so that regurgitation of food from the stomach is apt to take place" (*b*). Dr. W. B. Carpenter seems to pass over this part of the subject lightly, and it is not till treating of the effects of section of the vagi on the gastric secretions that he plainly states that "the first obvious effects of this operation are vomiting (in animals that are capable of it) and loathing of food" (*c*). He also tells us, in another place, that the re-opening of the cardiac orifice, on pressure from within, is one of the first of that series of reverse actions which constitute vomiting (*d*). It is evident that the "pressure" referred to and the force necessarily required to eject the contents of the stomach and œsophagus could not come from "paralyzed" muscles, which the facts show to be really undergoing active contraction. That nerve force is actually in abeyance in the act of vomiting was fully recognized by Dr. Anstie, who places it among the effects of paralysis of the medulla oblongata in narcosis (*e*). While the vomiting of migraine, he says, "marks the lowest point of nervous depression." (*f*).

Had those eminent physiologists, Drs. Todd and Bowman, doubts of the truth of the physiological theory of the day, and a prescience of what the future had in store, when they wrote: "The office of the gastric branches of the vagi nerves appears, from Dr. Reid's experiments, to be chiefly to *control* the movements of the muscular coat of the stomach. [Italics mine.] (*g*). That is precisely what the scope of this paper is designed to show —that in so far as the involuntary muscles, at least, are concerned, the function of uerve force is not to stimulate, but to restrain and control muscular activity; which all physiologists regard as an inherent endowment of muscular tissue.

THE BRONCHIAL MUSCLES.

Dr. Burdon Sanderson informs the readers of the "Hand-Book," that after section of the vagi "the muscular fibres of the bronchial tubes are in a similar condition" to those of the œsophagus and stomach (*h*). Then it is evident that the muscular bands come under the rule or law laid down above, and contract, like other muscles of this class, when deprived of nervous influence.

THE NASAL MUSCLES.

It is a curious fact, that "owing to the great size of the vellum pendulum palati, the horse is unable to breathe through the mouth" (*i*). As a consequence, respiration is carried on in this animal exclusively through his nose; and when both the facial nerves are cut, or paralyzed, "the nostrils immediately collapse, and the animal dies by suffocation" (*j*). A result very similar, so far as the closure of the nostrils is concerned, has occur red in the human subject, during paralysis of the facial nerve. Thus, Sir Thomas Watson, reporting the case of the girl, Jane Smith, says: "When she tried to snuff in air through her nose, not being able to keep the right nostril stiff and open, its sides came together, and no air passed up that side" (*k*). A little reflection will show that this is necessarily due to muscular contraction. The effect produced is not to be accounted for by any filling up or stuffing of the nasal passage by relaxed or paralyzed muscles, because the muscles are on the exterior of the cartilages, and mucous membrane or fibrous tissue does not contract or respond to nerve action. The obstruction is caused by the cartilages of the nose coming together, for which the only adequate explanation is the action of the constricting muscles, which, as in other similar cases, assert their power when nervous restraint is removed.

(*a*) Dr. Carpenter's Hum. Phys., 5th Amer. Ed., p. 404.
(*b*) Hand-book for Phys. Lab., Amer. Ed., p. 318.
(*c*) Ib. p. 423. (*d*) Ib. p. 404.
(*e*) Stimulants and Narcotics, p. 168.
(*f*) Neuralgia, p. 39.
(*g*) Phys. Anat., p. 493.
(*h*) Ib p. 318.
(*i*) Strangeway's Veterinary Anat., p. 209.
(*j*) Bernard, quoted by Dr. Dalton, Phys., p. 458.
(*k*) Lectures, Prac. Physic, p. 366.

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SPASM OF THE GLOTTIS DUE TO NERVE PARALYSIS.

We now come to a still more striking illustration of the truth of the proposition laid down above. The aperature of the glottis is closed by one set of muscles and opened or dilated by another. The constricting muscles are the arytenoidei and crico-arytenoidei laterales, while the dilators of the glottis are the crico-arytenoidei postici.

Dr. Burdon Sanderson states that "the widening of the glottis is a condition of general muscular relaxation." He further states that the closing of the glottis is equally due to a general contraction of all the muscles; so that the glottis is closed, "not because the postici crico-arytenoidei muscles and the other dilating muscles * do not act with the rest, but because they are overpowered by the constricting muscles (*a*). The situation thus depicted becomes quite remarkable and full of interest, when it is remembered that the sole motor nervous supply to both these sets of muscles passes through the inferior laryngeal (or recurrent) nerves, a branch of the pneumogastric, and that when this nerve is cut or paralyzed, the closure of the glottis takes place, as a result of spasm of both of the antagonizing muscles, as just stated. On page 318 of the Hand-book the same eminent physiologist, describing the effects of section of the vagi, says: "The glottis is partially closed, just as it is in death." How the glottis is closed in death will appear from the fact, vouched for by Dr. Austin Flint, in the 5th edition of his "Practice of Medicine," when he says, the operation of passing a probang within the larynx, "is extremely difficult, if it be practicable, on the cadaver" (*b*).

There can be no doubt about the effect of the section referred to being of a paralyzing character, so far as the nerve is concerned, seeing that the simple section of the nerve during life, and the extinction of all nerve force in death, lead to precisely the same results as regards the closure of the glottal aperture. Dr. Burdon Sanderson adds that, "in animals with divided vagi, life may be prolonged by tracheotomy," showing how complete and fatal is the spasm thus produced. Other evidence of similar import is not lacking. Thus, Dr. Austin Flint, discussing the "danger of death from suffocation" in the "obstructed inspiration" occurring in nervous aphonia, says: "The condition is analogous to that after the physiological experiment of dividing both recurrent laryngeal nerves" (*c*). The same author has "reported a case in which the left recurrent nerve being situated betwen a calcareous deposit and an aneurismal tumor, spasm of the glottis occurred so frequently and to such an extent as to prove fatal" (*d*).

Now, since the recurrent nerve is the only motor nerve supplying these muscles, and since section or pressure on a nerve trunk cannot increase nerve activity—the nerve trunks being mere carriers and not producers of nerve force—it is evident that no other conclusion is possible than that the spasm here referred to is due to the absence of nerve force, and not to a stimulus from excited nerve action. And since nerve paralysis is thus shown to be directly the cause of spasm of the glottis, is it not necessary to infer that whatever is done by reflex action to cause spasm of the glottis must be of a paralyzing character to the nerve also? Thus, what is vaguely called "irritation," by which is usually meant an excitation or exaltation of nerve power, and which consists really in a perturbation of nerve force, must necessarily be an influence of a paralyzing character to the nerves it traverses. Such reflex "irritations" are usually attributed to brain lesions, to indigestible food, and other causes of a more or less debilitating character which may well arrest, rather than develop, the flow of nervous activity.

If it be true, that pain is "an expression of impeded and imperfect nerve energy, not of heightened nerve function," for which there is high authority (*e*), how much more is the perturbation of the nerve molecules, which constitutes "irritation," a disturbance of normal activities which is equivalent to paralysis.

RELATION OF VASO-MOTOR NERVES TO THE ARTERIAL MUSCLES.

I propose to show here, on the very best physiological authority, that what is known as "paralytic hyperæmia" is—contrary to the accepted opinion—venous and not arterial.

I need not delay to offer proof that the middle muscular coat of the arteries is under the control of the vaso-motor nerves of the sympathetic, which regulate the calibre of these tubes; or that the

* There are no "other dilating muscles" than the crico-arytenoidei postici.

(*a*) Hand-book, p. 308. (*b*) Ib., p. 294.

(*c*) Prac. of Med., 5th Ed., p. 309. (*d*) Ib., p. 371.

(*e*) Anstie, "Neuralgia," pp. 12 and 163.

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chief vaso-motor centre is in the medulla oblongata, with probably lesser centres in the spinal cord. These are among the well-authenticated facts of recent physiology. It is in determining the action or play of this mechanism, that I have the temerity to claim that our physiologists have made an "unscientific use of the imagination." The theory of the text-books is that when the influence of the vaso-motor centre is cut off from the arterial muscle in any way, hyperæmia of the arteries results. Thus in destruction of the nervous centres by the operation of "pithing"—as a result of section of the spinal cord just below the medulla, and on section of the chief vaso-motor nerve trunks, in the body or viscera, it is claimed that the corresponding arteries are more or less dilated. Dr. Burdon Sanderson contents himself with stating that under these circumstances, "the arteries are relaxed," and again, that they "become permanently larger" (*a*). Other physiological teachers, such as Prof. Kuss, say that here the arteries are "dilated," while Dr. Sidney Ringer, in his excellent "Therapeutics," has it that "the arteries remain widely dilated" (*b*). We shall presently see how far these statements are justified by the facts.

SECTION OF THE CERVICAL SYMPATHETIC.

To M. Claude Bernard and Dr. Brown-Sequard we are largely indebted for what is known on this subject, as observed by them in the famous experiment on the cervical sympathetic. Dr. Brown-Sequard enters into the details at great length in his "Physiology and Pathology of the Central Nervous System." Yet nowhere in this work, in regard to this or any other section of cord or nerve, does he once assert that the arteries are dilated. In the pages devoted to it he refers to the contemporary experiments on this subject by Waller, Donders and his pupils, by Kussmaul and Tenner, Moritz and Schiff, yet he makes no mention of an allusion to dilated arteries by any of these eminent observers. This is surely significant. With him it was always "the blood vessels" which are "paralyzed" and "the blood vessels" which are "dilated." He says that "the hanging down of an animal, by holding it up by its hind legs, in producing a congestion of the brain, produces very nearly all the effects of this section" (*c*).

From these considerations it will be evident, first, that it was by no means apparent—was indeed a matter of great difficulty to determine accurately what particular "vessels" were enlarged, hidden as they mostly were beneath the skin and its subjacent tissues. Nay, it is not too much to say, that the statement that it is the arteries that are enlarged is purely hypothetical, and not based upon an actual demonstration of the facts. Secondly, it will be also evident from the statement just quoted from Dr. Brown-Sequard, that venous hyperæmia, the result of the blood being forced out of the arteries by their partial contraction, "very nearly accounts for all the effects of this section." The truth of this will not only appear from what is to follow now, but from the effect of other sections to be noted. Notwithstanding an increased afflux of blood, and consequently a relative elevation of temperature, with heightened sensibility, "the intimate acts of nutrition appear to be modified in nothing. . . . Nor does it appear that this hyperæmia, however intense or prolonged it may be, has ever the effect, save under exceptional circumstances, of determining by itself the development of inflammatory action" (*d*). This could hardly be the case if the hyperæmia were arterial.

Among the effects of this section on muscles, as recorded by Dr. Brown-Sequard, are contraction of the pupil, retraction of the eye-ball, partial closing of the eye-lids, contraction of "almost all the muscles of the eye," and also of the muscles of the angle of the mouth and nose; contraction of the erectile muscles of the ear, and others. Now, seeing that it is *contraction*, and not relaxation of all these muscles, which follows section of this nerve, the law of analogy would require that the muscles of the arteries supplied by this nerve be contracted also; otherwise the anomaly would exist of the same nerve producing contraction in a large number of muscles and relaxation in a single instance. Why should the arterial muscle be regarded as an exception among so many others, especially when all the facts of the case are compatible with arterial contraction and venous fullness?

As for the second part of the experiment, in which the hyperæmia is dissipated by faradization of the distal end of the cut nerve, that is easily accounted for. The terminal branches of the cut

(*a*) Hand-book, pp. 245-256.
(*b*) 6th Amer. Ed., p. 312. (*c*) Ib., p. 143.
(*d*) M. Charcot, Lect. Nerv. Sys., pp. 90-91.

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sympathetic evidently influence the muscles of the the head and face over a wide area. As is well known, the effect of faradization is to set up a succession of rapid contractions and relaxations in muscular tissue. The pressure thus brought to bear on the swollen veins would amply suffice to force their contents onwards, and thus to dissipate the venous congestion. Examples of this very result are not lacking. Thus when Kolliker applied one pole to the umbilical artery and vein of a fresh human placenta, there followed contractions by which the veins forced out their contents and changed into bloodless strings" (*e*).

The following quotations from Rosenthal's "Diseases of the Nervous System," Vol. II., Wood's Library, have a peculiar fitness here; "Kussmaul and Tenner have shown in a series of experiments, by placing a watch-glass in the opening of a trephined skull, without allowing the air to enter (Donder's plan), that compression of the carotids causes capillary anæmia and venous hyperæmia of the brain and meninges" (*f*). "In Verneuill's patient, upon whom ligature of the carotid was performed for a tumor of the parotid gland, persistent contraction of the pupil developed shortly afterwards, with rise of temperature and vascular dilatation upon the temple and gums, and abundant perspiration upon the side of the face, corresponding to the operation. All these symptoms can be produced experimentally upon animals by dividing the cervical sympathetic" (*g*).

Here is a remarkable proof that the section referred to causes arterial contraction (and not dilatation), seeing that the other effects of the section are equivalent to those produced by ligature of the carotid.

(To be continued.)

CROUPOUS PNEUMONIA, AS FOUND IN VARIOUS PARTS OF THE DOMINION OF CANADA.*

BY WALTER B. GEIKIE, M.D., C.M., F.R.C.S.E., L.R.C.P.L.
Prof. of Medicine and Clinical Medicine, Trinity Medical College, Toronto.

I do not for a moment propose to bring a subject so familiar as Pneumonia before the medical section of this International Medical Congress.

True, no disease attracts more attention, or is more widely known in both hemispheres, and on this account it occurred to me as desirable, in addition to my own observation, to obtain by correspondence, as far as lay in my power, some information regarding the prevalence and peculiarities, if any, of croupous pneumonia, as found throughout Canada, from the Pacific on its western, to the Atlantic on its eastern shores. It further seemed more than likely that a short paper referring to a subject so practical and of such widespread interest as inflammation of the lungs, would be certain to elicit the views and experience of many members of the Congress, and in this way prove of great practical utility.

It would be out of the question to detain the section, by reading in detail either the queries submitted by me to various medical men throughout Canada, or the replies received to these.

The main point desired was to ascertain the *frequency* with which the disease was met with in different parts of the country, remote from each other—and the form or forms it is wont to assume under very varying climatic conditions.

From British Columbia on the western coast I learn—and may say that the information received so far has been chiefly from the New Westminster district—that pneumonia is *not* of very frequent occurrence. That when met with, especially in the larger towns, it is as an accompaniment of some other form of disease. In other words, that it is a *secondary* much oftener than a primary affection, and as the disease with which it is most frequently associated, is typhoid fever, many of the cases are prone to assume a very low form.

Acute cases, however, occur from time to time, but are said by my correspondents to be not nearly as common in that region, as the complicated low type just referred to.

Coming eastward into the as yet very partially known and exceedingly sparsely inhabited regions of Alberta and Assiniboia, pneumonia is said not to be common. Query—Is this not because settlers are as yet so few in these vast territories?

I am also informed that it has never appeared in those parts as epidemic, as it is reported and believed to do occasionally in some older and more fully settled localities. Practitioners there find it a purely primary disease, an acute inflammation of the lungs, pure and simple.

(*e*) Meyer's Elec. Hammond, p. 88. (*f*) Ib., p. 64.
(*g*) Ib., p. 26.

*Read at the International Medical Congress held at Washington, D.C., U.S., September, 1887.

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It is important to bear in mind that in British Columbia, as well as over the entire Canadian North-West, reaching from the eastern side of the Rocky Mountains to the westerly limits of Ontario, *malaria*, which, wherever found, so largely influences every disease, is practically non-existent.

In all the vast tract just spoken of, pneumonia is met with more or less frequently in proportion to the number of people settled in *particular* localities. It is, as in *almost*, if not *every* other place, found to take the *acute* form in *scattered* settlements, and not seldom a *lower* form in towns and villages, particularly in those which are increasing very rapidly in population. The explanation of this, I take it, is not far to seek. Population in American and Canadian communities often increases with great rapidity, while the carrying out of efficient sanitary regulations takes much time, and what is more scarce than even time in all new places, a good deal of money. The fact, now happily becoming more and more familiar, that as sanitary measures are perfected, *low* forms of pneumonia, and of all other diseases, tend greatly to decrease, abundantly verifies this observation.

Coming still eastward through Ontario, pneumonia is found to occur frequently and in an acute form at certain seasons—chiefly towards and during spring, especially in rural districts.

As we would expect, many cases present themselves in which more or less blood-poisoning co-exists with the local inflammation, giving them often a somewhat asthenic character. As we pass into the more southerly portions of Ontario, malaria becomes a very important factor, not in pneumonia alone, but also in every other disease, modifying not the type only, but the entire course of the cases very considerably.

From districts more or less malarious I have received conflicting reports as to the frequency of pneumonia, but learn, that in a very large proportion, given by some as high as *two-thirds* of all the cases, the disease tends to assume a *low* form.

This is very markedly the case in some of our cities; in Toronto, for example, where, during the last winter and spring, pneumonia has been very prevalent. Owing to the particularly low form of many of the cases, an unfavorable termination has occurred in a much larger proportion than for several years past. It attacked not only the weak and broken down, but many young and middle-aged persons as well, who, prior to the attack, had been vigorous, and of ages varying from 15 to 35 years. Weakly and broken-down constitutions and persons advanced in life sank, in many instances, after only a few days' illness, in spite of every effort made to save them. *General* and excessive prostration was its principal feature. According to some of my correspondents who kept an accurate record, the cases were so numerous, that the disease, or as some under the circumstances would call it, the specific fever accompanying the pneumonia, appeared to be *contagious*. For example, one of our most experienced hospital authorities, speaking from his own observation, says, nearly all the cases he saw last winter and spring presented the same low type. He found several instances of two or three cases coming from one house—each case running just the same course—one often falling ill a short time after the other. It is a pity the exact periods at which the illness began were not observed. In every one of them the pneumonia was very marked as well as extensive.

From several other cities of considerable population a similar report might be given, especially of the pneumonia of last winter, as to its frequent occurrence and the low type it assumed. . .

The asthenic form prevalent from year to year in our Ontario cities, where we do not have the very low winter temperatures reached in Quebec and in the North-West, is very striking. I know that in Toronto, as in other cities on this side of the Atlantic, amongst the poorer classes, exhaustion from overwork or underfeeding may and does exist, but happily only to a comparatively slight extent. And I freely and sadly admit that prostration of the system to a *far greater* extent is due to alcoholic and other excesses; but making liberal allowance for all such cases, have *imperfect drainage, more or less impurity in the drinking water*, and malarial poisoning, not much more to do than all other causes combined in giving rise to this particular type of disease?

In the more northern portions of Ontario the pneumonia record from rural districts, villages and towns is just what might be anticipated. The disease is frequently in strictly rural parts, acute, but presents a much less active, and often even a *low form* in lesser, or greater centres of population. Coming to the Province of Quebec, we learn that

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in Montreal, the most populous city in Canada, pneumonia is frequent, and is, as a rule, as my best correspondents inform me, *acute* in form. Unless in feeble persons, young or old, or amongst the intemperate, the asthenic forms of the disease are seldom met with. The *very* low form, thought by some to be contagious, on which some of my correspondents in Toronto and in some places west of that city have laid great stress, is said to be exceedingly rare in Montreal, and its presence there as an epidemic is strongly questioned.

As is the case throughout the entire North-West, so malaria is practically unknown in the Province of Quebec. The small amount of it met with, occurs in persons who have entered the province from malarious localities in the west or south.

There is little doubt in my mind that to this absence of malaria, as well as to a considerable similarity of climate, is due the fact that the pneumonia met with presents much the same characteristic features in these widely separated regions.

Coming still further eastward, and seaward, we notice very briefly the disease in Prince Edward Island. This little insular province, presents in summer in most parts, the very perfection of natural beauty, although perhaps the less said about it in winter, the better. Pneumonia of an *acute* type is reported as frequent, more so during some seasons than others Some of my esteemed correspondents refer to the cases being at times so numerous as almost to justify the view that it prevails epidemically.

As in type, course and frequency of occurrence, pneumonia is just the same as a rule in New Brunswick, Nova Scotia, and in the old colony of Newfoundland, with its appendage, Cape Breton, as in Prince Edward Island, it is needless to do more than mention that in *all* these provinces the form commonly seen in country parts, is the *acute. Now* and *then* due, as elsewhere, doubtless, largely to local causes, cases are seen in towns and cities of a very low form, which tax to the utmost the skill of the medical attendants.

In this paper I purposely omit any reference to the portions of the reports sent me, regarding the theories held as to the nature of the disease—whether it is a *local affection only*, attended with symptomatic fever, or a *specific form*, of which the local dicease is a mere accompaniment. Neither will I speak of the treatment of pneumonia adopted in different parts of Canada.

To enter on these topics would make this paper altogether too long—and long papers, like too long sermons, are not consistent with the brevity of human life, and nearly always make listeners sleepy, rather than interested.

I may, however, be permitted to say here, that many authors, some of whom are very justly esteemed and have great weight given to their views by the profession, are *on the one hand* rather too *brief* and *general* in their remarks on the *treatment* of this disease; and on the other, frequently do not, as it appears to me, bring into sufficiently bold relief the sound principles which underlie the largest measure of success. These are admirably laid down by Mr. Erichsen in his great work on surgery, where he treats of the management of inflammation in general (See Vol. I. last American Edition, p. 225). It seems unusual to refer to a work on surgery in a paper on a purely medical subject, but Mr. Erichsen's remarks are by no means seldom quoted approvingly by physicians. I will not detain you by giving the passage in full. The author strongly and very properly objects to all inflammatory diseases (and pneumonia is one of them) being treated on any *uniform* plan, whether by depressants or by stimulation. As regards management of cases of pneumonia, no remark can be more practical or valuable than this, that so far as successful treatment goes, "*it is of far greater importance to be able to estimate accurately the constitutional condition of the patient, than to be able to form a minute diagnosis of the precise extent and depth of the local mischief.*" We, therefore, in Canada, as elsewhere, use *repressive* means in one case of pneumonia and *stimulate* more or less freely in another. Or often, in the same case, after judiciously repressing existing vascular over-activity for a *short* time, we *may*—indeed, if it be called for, WE MUST support and stimulate to any required extent. This varying of the means to be adopted in particular cases at particular stages, calls for the exercise of the greatest judgment and all the knowledge we possess; but it is the only practice which can secure the best results to our patients, and at the same time most redound to the credit of medical science. Such practice is no mere routine, but a strict following of medical science, properly so-called.

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For the many answers to my queries received from medical friends throughout Canada, I beg, without naming them, for that they might not like, to return my very sincere thanks.

I am fully aware of not having been able to gather anything new, or at all striking, from any quarter of the wide field gone over, and I did not expect to do so. But to make the enquiries and to get answers from so many parts of the Dominion interested me greatly, and I hope the subject may not prove altogether devoid of interest to those who have done me the honor of being present. I heartily thank the medical section of the Congress for their patient hearing of this paper. I have only to regret having had too little time at my disposal to make my researches as exhaustive as could have wished, over an area comprising many thousands of miles, stretching as it does across the western part of the American continent, and presenting climatic and other differences, great, in proportion to its vast extent.

TREATMENT OF POST PARTUM HEMORRHAGE—BY INTRA-UTERINE INJECTION OF BRANDY OR WHISKEY.

BY J. ALGERNON TEMPLE, M.D., TORONTO.

Post-partum hemorrhage is much less frequently met with to-day in practice than formerly, since the introduction of uterine compression during the latter part of the second and third stages of labor as the most powerful preventative against this alarming accident. Yet now and then, in spite of all our efforts, we will occasionally have to treat it. Some years ago I drew attention through the medical press of this country to the inestimable value of the intra-uterine injection of pure brandy or whiskey as being a most powerful and prompt uterine contractor, and far superior to any other agent I have ever used, hot water or iron not excepted, and free from the dangers attending the use of iron; it does not coagulate the blood in the mouths of the uterine vessels and expose the patient to the danger of death from embolism, but merely produces the most powerful and prompt uterine contraction. Within the last week it has been my misfortune to come across two very severe cases of post-partum hemorrhage. In both cases I tried hot water, as hot as I could use it, without producing the desired contraction, and in one case I treated only last night, I feel very sure had I not used brandy as an intra-uterine injection I would have lost the patient, a delicate woman, second child; who had been in labor about twelve hours, and after the birth of her child she seemed much exhausted and prostrated. The placenta came away shortly after the child's birth, but the uterus did not contract. I emptied it three times with my hand and injected copiously very hot water, without producing any effect whatever. I finally injected a tumbler full of pure brandy. The action of contraction was almost instantaneous; the uterus became hard and firm, and remained so. Not only does it produce rapid contraction, but its stimulating effect on the heart and pulse is generally noticed. I think undoubtedly it is also absorbed into the blood. In all cases in which I have used it, the patients express a sensation of warmth and comfort in the uterine region, so unlike the chilling effect after the use of ice.

Before its use the uterine cavity must be cleared out of all clots, and then inject a tumblerful of pure brandy—whiskey will answer as well. To those practitioners who have not tried this plan of treatment, I most heartily commend it.

Dec. 13th, 1887.

THE QUESTION OF ABSCISSION OF THE TONSILS.

BY G. STERLING RYERSON, M.D., C.M., L.R.C.S. EDIN.

Lecturer on the Eye, Ear, and Throat, in Trinity Medical School, Toronto.

An experience, ranging over a considerable number of years, has taught me that there is hardly any matter connected with the practice of medicine about which exists greater divergence of opinion among practitioners, and of which more superstitious fear is felt by the laity, than of the operation of removal of the tonsils. For an explanation of this feeling amongst the laity, I am inclined to believe that we must look to the ancient belief that the tonsils were, in some occult way, connected with the testes, just as the external ear was supposed to be; and hence, thieves were deprived of their auricular appendage partly as a mark of disgrace, but more probably with a view to preventing the propagation of their kind. The profession have perhaps, to some extent, inherited

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this belief, which was incorporated by the early medical writers with other fanciful theories in their works. The questions before us are :—1st. When should the tonsils be abscissed? and 2nd. When is it safe to resort only to medicinal measures—local or constitutional?

1. To consider the first question, it is necessary to briefly recall what ill a hypertrophied tonsil can do.

The effect of enlarged tonsils on the *voice* is to render it "throaty" in quality, to impair its resonance, and to interfere with the production of the higher notes of the scale requiring lifting of the soft palate and closure of the naso-pharyngeal space. Hence, it is a serious matter for vocalists. The *hearing* is very apt to suffer by the extension by contiguity to the Eustachian tube, by enlargement also of the pharyngeal tonsil (gland of Luschka), actual pressure is occasionally exerted on the tubes. Irritation also of the tube tends to keep up purulent discharge, if already present. After a certain time organic change takes place in the tympanic cavity, which cannot be remedied. "Of all the evil results," says Sir Morell Mackenzie in his Treatise on the Throat, "attendant on hypertrophy of the tonsils, those due to interference of the diseased masses with free *respiration* are the most serious. The partial occlusion of the nasal channel posteriorly by the enlarged tonsils obliging the patient to keep his mouth almost constantly open, renders him unusually exposed to all the external influences which produce inflammatory affections of the respiratory tract, whilst the persistent obstruction to respiration leads to serious changes in the thoracic parietes. . . . In childhood the bones yield easily to such influences, and anyone who has witnessed the difficulty of breathing which occurs, especially during sleep, will readily understand how pernicious may be its effects on the respiratory apparatus. In addition to the organic alterations in the bones of the chest, other evils are brought about, and Chassaignac well observes that although increased efforts of the diaphragm, to a certain extent, neutralize the impediment to respiration, there are frequent intervals when the powers become temporarily exhausted and the *oxygenation of the blood* is very incompletely performed. The vital forces are in consequence very much lowered, the patient lives in a state of permanent ill-health, and easily succumbs to any acute attack of disease, particularly if affecting the respiratory organs."

The effect on the *physiognomy* is too well known to require any remark from me. It will be noticed that the ill effects of enlarged tonsils are mechanical in nature and due to interference with function by *mechanical obstruction* chiefly.

It may then be laid down as a rule that when enlarged tonsils are interfering with proper respiration or hearing, or are subject to relapsing acute inflammations, they should be removed. When the voice is impaired by them, it might be optional, depending on the patient's occupation. It should be borne in mind that, if long continued, the ill effects of enlarged tonsils are *permanent* in their nature.

The answer to the second question is then easy. When the general health is not impaired and there is no interference with important functions, the tonsils may be submitted to medicinal treatment. I may remark in passing, that the drug I have found most useful in causing tonsils to subside is Hydrastis Canadensis, applied in rather strong solution of the fluid extract. Astringents and iodine are often disappointing and uncertain.

As regards the mode of operation, the guillotine of Mathieu is the best in my experience. Mackenzie's guillotine has disadvantages which Mathieu's has not. Very large tonsils, and long, narrow tonsils, extending down almost to the larynx, must be removed by the vulcellum forceps and blunt pointed bistoury. I have never met with serious hemorrhage, and am inclined to think the danger much over-estimated. A mixture of one-third gallic and two-thirds tannic acid, applied dry with the finger, will stop any ordinary bleeding.

Correspondence

OUR LONDON LETTER.

(From Our Own Correspondent.)

London, Dec. 7th, 1887.

SOME METHODS OF TREATMENT.

At the Hospital for Women, Soho Square, during the past year, Dr. Oliver has been markedly successful in the treatment of uterine displacements by means of vaginal medication, having discarded

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the use of pessaries in all cases except those of extreme prolapsus, where the original walls are past all hope of being restored to their normal tone. He claims that we have too long ignored the absorbent power of the mucous membrane of the vagina, and points out that the method of administration of remedies by vaginal suppositories is especially beneficial in pelvic derangements. In cases of retroversion, retroflexion, anteversion, anteflexion, and recent or partial prolapsus, no method of replacement is adopted, the following suppository being relied upon entirely :—

℞.—Quin. hydrochloras, ... grs. iij.
Digitalin, ... gr. $\frac{1}{60}$.
Strychniæ, ... gr. $\frac{1}{30}$.
Glycerine jelly, ... q.s.

Sig.—One to be used every night, per vagina, followed in the morning by a warm vaginal injection ; in bad cases two suppositories daily are used. In the great majority of cases, I have observed during the past three months, the distressing symptoms common in these conditions have been speedily relieved and the uterus has recovered its normal tone, and in many its position.

In cases of climacteric diabetes, etc., at the same hospital, I have seen the following pill used with marked success :—

℞.—Codeia, ... gr. $\frac{1}{4}$.
Conf. rosæ, ... q.s.

Sig.—One to be taken three times daily.

In those troublesome cases of severe pruritus of the vagina, the following gave relief after other remedies had failed :—

℞.—Cocaine, ... grs. x.
Chloral, ... grs. xij.
Glycerine, ... ℥j.

Sig.—To be applied three or four times daily.

In cases of general fibroid change of the uterus, the following is prescribed with beneficial results :

℞.—Ext. ergot liq., ...
Tr. ferri perchlor, ...
Spts. chloroform, ... āā ♏ x.
Aq. ad. . . . . ℥j.

Sig.—To be taken every four hours.

In cases of plastic pelvic-peritonitis, the following, together with warm vaginal injections, has proved to be a very effective treatment :—

℞.—Calcii chlorid, ... grs. x.
Glycerine, ... ℥ss.
Infus. quassiæ, ... ℥j.

Sig.—To be taken three times daily.

Iodol is becoming more largely used in several of the hospitals here, and is found to be an effective substitute for iodoform, having the additional advantages of being nearly odorless, tasteless, producing no constitutional effects, and of containing almost as large a percentage of iodine, which it parts with more freely. It has proved to be antiseptic, anesthetic, a promoter of granulation and healing, to check suppuration and deodorize foul secretions ; in fact it possesses all the therapeutical virtues of iodoform, without its unpleasant drawbacks. I have seen it used with prompt benefit in cases of atonic, syphilitic, and corneal ulcerations and other purulent conditions. It is an especially useful application in throat affections, such as phthisical laryngitis, and other ulcerations of the inter-arytenoid fold, the vocal cords, ventricular bands, and in almost all laryngeal, pharyngeal, nasal and aural cases where a catarrhal or ulcerative condition exists. Daily or tri-weekly insufflations of the pure powder of iodol may be used, freely covering the diseased surfaces. The best brush application is the following : Iodol, 1 part ; alcohol, 16 parts, and glycerine, 34 parts ; while the best for use as a spray is as follows : Iodol, 1 drachm ; ether, 1 ounce. This makes a light brownish mixture, the ether of which evaporates quickly, leaving the iodol upon the affected surface In all cases it is, of course, essential to first thoroughly cleanse the diseased surfaces, and for this purpose the following lotion is the most useful :—

℞.—Sodæ bi-carb., ... grs. xv.
Acid carbol., ... grs. jss.
Aq. . . . . ℥j.

Iodol pastiles, consisting of iodol, 1 grain ; glycerine, 1 minim, and glycogelatine, 18 grains, are very beneficial in chronic pharyngeal affections.

CANADIAN.

Selected Articles.

ADDRESS ON THE OPENING OF THE NEW YORK CANCER HOSPITAL.

BY FORDYCE BARKER, M.D., LL.D.

The opening of a new hospital in this city, the first in this country and the second only in the world, devoted exclusively to the treatment of cancer, is an event of such importance that I greatly regret that the selection of a person to give

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e address had not fallen upon one more compe tent to do justice to the occasion. But some considerations have been forced upon me which seem to make it an imperative duty to accept the position, and throw myself on your kind indulgence. One inducement which had its weight on my mind is the fact that I do not profess to be a surgeon, and as the wonderful progress made within the past decade, in the successful cure of many cases of cancer which before would have been left to die a miserable death, have been in the domain of surgery and the result of surgical proceedings, I can speak of these without any imputation of self-laudation.

My purpose is simply to show the necessity for and the usefulness of such a hospital—to impar some knowledge of the nature of this terrible disease, cases of which will seek relief and cure within these walls, and to correct some popular errors in regard to it which seem to be almost universal, and which the profession well know have caused an incalculable amount of unnecessary misery and unhappiness in the world. It is to be confidently hoped that the good which this hospital will eventually accomplish in the relief of unhappiness and suffering will be represented only in a minor degree by its future inmates, but will extend to many thousands who will never be within its walls.

As preliminary to what I am about to say, I may be permitted to define some words which are in general use by the public in a sense quite different from their professional use. The word tumor, when applied to any abnormal enlargement in any part of the system, is one which carries terror to the minds of most patients, who often consult their physician because of an avowed apprehension that they have a tumor. The word tumor is nearly but not exactly identical with the word swelling, and carries to the professional mind no significance as necessarily implying danger to life. We speak of glandular tumors, fatty, cellular, or fibrous tumors as innocent or benign, meaning thereby that they are purely local growths having no tendency to extension by formation of other growths, and that if removed they are gone for ever. But we also have what are called malignant tumors, which involve a destructive degeneration and gradual invasion of adjacent tissue, and which may finally infect the general system and destroy life. Cancer, using the term in a generic sense, is a typical form of malignant tumor. It is probable that this was first observed and studied as an external disease. The name is said to have been given to this affection by Galen, who lived in Rome in the latter part of the second century and was a physician of great eminence, and one of the most accomplished and learned men of his age. From a fancied resemblance of the appearance of the disease as it extends itself into adjacent healthy tissue to the claws of a crab, he gave it the Latin name of crab—namely cancer. Since his day the name has been universally adopted both by the medical profession and the public, and is popularly applied to all forms of the so-called malignant growths, such as scirrhus or hard cancer, encephaloid or brain-like cancer, epithelioma, the rapidly growing infecting and recurrent forms of sarcoma, and other varieties, which may differ much in structure and in their clinical features. The malignancy which is the common characteristic of all, justifies the long-continued popular usage of the term cancer to cover all these diseases, and all come within the province of this hospital to treat. I will briefly refer to some of the peculiarities of this group of diseases which distinguish them from all others. They have for some years been gradually increasing in frequency and causing a larger proportion of deaths in those nations which are the most advanced in civilization.

In the "Forty-first Annual Report of the Regis ter-General of England," published in 1880, it is asserted that the number of deaths from cancer was 5,218 in 1851, and 12,664 in 1878; but as the population had largely increased in this period, the increase in frequency will be more distinctly appreciated by the following quotation from this report: "The average annual mortality (from cancer) during the five years 1850-'54 was 304 in one million living. In the five years 1870-'74 it was 443, while in the year 1878 it was 512."

In New York city the proportion of deaths from cancer in 1875 was 400 to the million. In 1885 it was 530 to the million. According to the "Reports on Vital Statistics of the Census of the United States of 1880," the proportion of deaths from cancer to the total number of deaths reported from known causes was 36·68 to the thousand.

Cancer is a disease of advanced age. It is found in all ages, but in very unequal proportions. In 8,193 cases the proportion of deaths under five years of age was 15·95 in a thousand, while from five to ten it is only 2·82 in a thousand, and from ten to fifteen 1·60 in a thousand. From the age of fifteen the proportion gradually rises in each quinquennium, until, between the ages of fifty and fifty-five, it reaches 130·18 in a thousand. After this period the proportion gradually diminishes as the population who are living after this period of life diminishes. Mr. Jonathan Hutchinson, of London, whose opinion on all questions of pathology is considered authority by the profession in all parts of the learned world, in the most able discussion which has ever been held on this subject, that before the Pathological and Clinical Society of Glasgow in 1886, said: "Of the causes which underlie the proclivity to cancer, and which render some races and some families more prone than others, we as yet know but little. What little we do know would lead us to believe that it has no-

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thing to do with diet or with climate. The herbivorous animals are liable to it as well as the carnivorous, and, so far as I know, it prevails in all parts of the world where the conditions are favorable to longevity. Wherever, from whatever cause, they are not so, there cancer beeomes relatively infrequent. It is almost unknown in those of our domestic animals which are used for food, for the simple reason that we never let them grow old, while in dogs, cats, horses and asses it is common."

Dr. Billings says: "The increase of mortality from cancer with advancing age may be explained either on the theory that the cause of cancer becomes more potential in advanced age at the period of physiological decay, or on the theory that the predisposition to cancer belongs to the strongest and longest lived." The fact is settled beyond question that in those populations where but few reach old age cancer is proportionately rare. There are some curious and interesting facts in regard to the geographical distribution of cancer which science as yet does not satisfactorily explain. The last census of the United States demonstrates that this disease is especially prevalent in the New England States and on the southern Pacific coast; that it is prevalent in New York, Pennsylvania, Ohio, and in the interior of Michigan and the southern part of Wisconsin; that it is least prevalent upon the Mississippi and in the South, and that the proportions are generally lower in the coast regions than in the interior. An examination of the reports of death from cancer in England and Wales made by Dr. Havilland led him to conclusions quite in accord with those derived from our own census. Both banks of the Tweed near Berwick, and of the Tyne at Newcastle, some parts of Yorkshire, and the whole of the beautiful Lake District, are fertile beds of cancer. The Isle of Wight is all but free from this disease, while it is common in Brighton, Folkestone, Dover, Ramsgate and Margate. Statistics also demonstrate, as other facts have seemed to prove, that density of population, poor living and laborious toil have very little to do with the development and appearance of cancer. Thus in London, in which, as a whole, cancer is very prevalent, the parish of St. Luke's, the neighborhood of Bishopsgate Street, crowded Bethnal Green, the Isle of Dog, Rothershithe and Bermondsey are almost exempt from this disease, but in the respectable part of the metropolis, about the Marylebone Road, Regents Park and Primrose Hill it is exceptionally frequent. Liverpool, which has a large mortality from other causes of death, as shown by the fact that, with a population of 552,000 in 1878, the number of deaths exeeeded those of the total number of its births by 1,000, the percentage of deaths from cancer was exceptionally small. In the future it may be discovered that the localities where the prevalence of this is most frequent have certain characteristics in common which science may overcome, and thus notably diminish this tendency in such localities.

In the "Report on the Vital Statistics of the United States of the Tenth Census in 1886," it is remarked that the peculiarities of the differences in the mortality from cancer in different localities may be in part explained by differences in the population of these localities as regards race and age. It is a disease which is much less frequent in the colored than in the white race, hence the mortality from it is greater in the North than in the South. It causes the greatest proportion of deaths where there are the greatest proportion of people of advanced age—that is to say, in the New England States. Hence in any given locality, a large proportion of deaths from cancer indicates to a certain extent that the locality is a healthful and a long-settled one, and has a large proportion of inhabitants of an advanced age. Cancer is not a disease due to misery, to poverty, to bad sanitary surroundings, to ignorance, or to bad habits. On the contrary, it is a disease of the most highly civilized, the most cultured, the wealthy, and of localities which are the most salubrious. One of the characteristics of cancer is that, unless the brain is involved, it leaves intellectual power and force unimpaired. Nay, it seems that in some cases it almost increases these qualities. No pathetic incident is more indelibly stamped on my memory than a visit made to a victim of this disease whom I found, as I often had before, seated at his writing table, his drawn, pallid face expressing fatigue and suffering, but still more expressive of will force and a remarkable power of endurance. "Excuse me," he said, as I entered the room, "until I finish a paragraph I have just begun." After a few moments he laid down his pen, saying, with a sad gleam of satisfaction, "There, since your visit yesterday I have written eight pages." After the commencement of his painful illness, stimulated by the hope of overcoming reverses and leaving his family in circumstance to which their former position entitled them, he succeeded in accomplishing a larger amount of work, and receiving a greater pecuniary reward for it, than in the history of the world was ever before attained for literary work in so short a period of time.

Census reports are to most persons uninteresting, and the value of the two large volumes of the last census which relate to the vital statistics of this country can be appreciated by but few persons; nevertheless, I wish to call your attention especially to the importance of these books, and to the remarks in which Dr. J. S. Billings, of the United States Army, under whose direction they were compiled, sums up the conclusions which may be drawn from them, and points out the way in which such statistics should be extended, improved, and made reliable as a means of increasing our knowledge of the causes of pain and death, and of

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the means of destroying or of diminishing these causes.

The belief has been almost universal, both with the profession and the public, until within a comparatively recent period, that cancer has generally a hereditary origin. It is probable that no doctrine in regard to the cause of disease has given rise to so much and so causeless misery and unhappiness in the world as this. In those who have some symptoms which they suspect to indicate the beginning of this disease, suspicion becomes a conviction if any relative of a former generation has died of cancer. They may almost be said to begin the pangs of a moral death long before it is demonstrable that physical death is inevitable from this cause. If the patient has any family history of this disease, and is suffering from any acute or chronic affection, attended with symptoms which he has heard exist in cancer, the effect of this conviction is not only most depressing, but dangerously complicates conditions which otherwise might result in recovery. I have personally known many illustrations of the truth of both of my two last assertions. Again, I have more than once been asked, in those pathetic tones which tell of heart-breaking anxiety, "Are my children or is my daughter doomed to suffer as I now do?" The answer, given in no equivocal words, is, The probability of such a doom for any descendant of yours is extremely small. In all the statistics which I have been able to collect, where the antecedent family history seemed to be trustworthy, I have found the proportion of those who have had cancer, in whom some relative of a former generation is reported to have had some form of malignant disease, to be only 13·65 per cent. On the other hand, in regard to one family which has in the present generation the largest number of victims I have ever personally known, I have authoritative proof for asserting that no development of any form of malignant disease has ever existed in three previous generations, including collateral branches.

Before a professional audience I could give a list of names, which would be regarded as conclusive as to present belief of the profession on this point. More than a quarter of a century ago, Mr. Jonathan Hutchinson, whose opinions carry the greatest weight, expressed his disbelief in hereditary origin as an effective cause. Recently—that is, during the past year—in a notable and most able discussion of this subject, he said: "It is utterly useless to employ such a term as hereditary transmission of cancer in such a sense as we speak of the transmission of some other diseases." A proclivity to disease may result from the conjunction of certain parentage, but it can not be said to be inherited from ancestors in whom it did not exist. We may speak of cancer being hereditary as we speak of delirium tremens as hereditary, but in neither case is this transmission of the disease. Parents can not transmit to children disease which has no existence in their own system previous to the birth of the children, and then it is absurd to say that a daughter has inherited the disease which her mother first developed twenty-five years after the birth of the daughter.

A cancer bacillus is as yet unknown in science, and the most recent investigations have failed to find any. But I observe that Sir James Paget, in a lecture delivered on the 11th of November, expressess the belief that micro-parasites, or substances produced by them, will some day be found in essential relation with cancer and cancerous diseases. But as yet there are no ascertained facts which support this belief. In a paper read before the Academy of Medicine in 1870, I then avowed the opinion that cancer could not be regarded as a hereditary disease, but that a hereditary tendency to it often exists in those whose ancestry has been wholly exempt from it. In such it is probably developed by some local existing causes.

Cancer was regarded by Abernethy, a great authority in pathology and surgery during the early part of the present century, as being simply the local manifestations of a constitutional disease. Within the past few years a large number of the most eminent pathologists have become adherents to the doctrine that it is primarily a local disease, and that the constitutional affection is a secondary result. This is not the time or place to review the various able arguments which have been urged in favor of one or the other view, but it is a point of great importance, as affecting the question of the curability of the disease. In the first place, no medicine has yet been discovered which acts specifically in retarding or curing the disease, as quinine and mercury and other medicines do certain specific diseases. No man has the moral right to administer any drug without some well-defined view of the end which he wishes to accomplish, and a well-grounded belief that the drug he selects will probably effect this result. But in cancer we do not know what primary changes are necessary, in either tissue or function, to prolong life or cure the disease. Even if we did know this, no drug has yet been found which experience has proved will effect these changes. So it may be positively asserted that no case of cancer has ever been proved to have been cured by medical treatment, and, as after three years it is generally believed that the probability of recurrence is very slight, we have the right to say that many cases have been absolutely cured by total removal of the diseased tissues.

I think sufficient facts have been accumulated, especially within the past ten years, to justify the following assertions. Total removal of the whole diseased growth when it is found as a distinctly limited affection, the lymphatic glands not being involved, it is highly probable will be followed by a cure.

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If the disease has involved the lymphatic vessels and glands, the chances of cure are materially diminished, but in many such cases an operation has proved to be of great service in relieving suffering and prolonging life for months, and in some cases from one to two or three years.

After the local disease has existed a sufficient length of time to contaminate the blood and infect the general system, a cure by an operation or by any other method is absolutely hopeless. Great progress has been made in successful surgery within the past few years by a resort to the operation at the earliest possible period—that is, so soon as the existence of the disease can be determined. The most recent and probably the most authoritative writer on this subject, Mr. Butlin, of London, asserts that every week of delay increases the danger of the contraction of various adhesions, of affection of the secondary glands, and of the formation of secondary growths. But duration alone is not a conclusive argument against the success of an operation, for, as the same author adds, "when long duration of a malignant tumor is associated with a very slow progress, small size, absence of serious adhesions, absence of affection of the neighbouring lymphatic glands and of secondary growths, so much the more favorable is the prospect of permanent relief from operation for its removal." The question of the locality of the growth is one of great importatnce in forming a decision as to the necessity and probable success of removal, and will always be carefully and conscientiously weighed before a decision is made. These malignant growths may appear in any tissue of the body, external or internal, and eminent surgeons of this city, as elsewhere, have removed them, with all the success anticipated, from muscles, bones, lymphatic glands, the eye, the face, the lower lip, the tongue, the breast, and other external organs.

If this were a fitting opportunity and time would permit, I am sure all present would be interested in hearing an account of such as I have personal knowledge of, either from my own observation or from a knowledge derived directly from the operations. But such details would be inappropriate on the present occasion, and I am compelled to deny myself the pleasure of paying a just tribute to the skill and sound judgment of surgeons that we have in our city.

Dr. S. W. Gross, of Philadelphia, asserts: "The convictions are steadily gaining ground that this disease in the breast is primarily a local affection and not a constitutional one, and that these views are supported by many of the most eminent men living; pathologists such as Virchow, of Berlin; Billroth, of Vienna; Fersche, of Breslau; Esmarch, of Kiel; Nussbaum, of Munich; Volkmann, of Halle; Erichsen, Hutchinson, Gull, Simon, Bryant, Green, and others, of London, and the late Dr. Goss and Dr. Parker, Dr. Peters, Dr. Moore, Dr. Richardson, and others, in the United States, have shown by the statistics of their own practice and that of others the usefulness and success of the surgical removal of the disease. But, as I have before said, removal of the disease by operation is not restricted to external organs, but many operations for removal of internal organs have been performed with all the success that could be anticipated, although, it must be added, there have been many failures. On November 14th, three weeks ago, I was present when one of the medical board of this hospital performed one of the most difficult operations ever attempted in surgery—viz: the entire removal of a most important internal organ. I had previously seen the patient, and concurred in the opinion that the operation was imperatively necessary, and that it offered a fair promise of success; I may add that the opinion of the operator and myself was given independently, each without the knowledge of the other. This patient, as I have learned within a few days, has had no unfavorable symptoms which have retarded her convalescence. It is possible that she may hereafter escape any return of the disease. It is certain that her life has been prolonged, and that she has been saved from months or perhaps years of suffering, which would have soon ended her days. A fair number of cases have been reported in which such results have been attained. And yet so late as fifteen years ago any proposal to attempt such an operation would have been condemned by the universal sentiment of the profession; and if it had been attempted and resulted in failure, the public would have denounced the operator as a reckless, unscrupulous butcher, who had no conscience as regards the result to his patient, but simply sought personal glory in the *éclat* of having performed a wonderful operation. All of us have before heard such language applied to surgeons.

The case which now commands the most universal sympathy and interest in all nations of the world, is that of the Crown Prince of Prussia. It is an unparalleled event in history that three men, two of whom had been at the head ef the government of their respective nations, and the third whose probable inheritance was an empire, should each have been victims to malignant disease, in contiguous localities differing only in some minor details, at the same period in the world's history. In the case of President Grant, the locality of the malignant growth was such that it was decided by most competent authority that from the beginning a successful removal by surgery was not practicable, as the danger from such an attempt would be much greater than the probability of any benefit. During the illness of General Grant I received a letter from the brother-in-law of Dom Ferdinand, ex-King of Portugal, and his attending sur-

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geon, detailing the history and description of the case of the ex-King, in whom malignant disease had also appeared in the mouth, very near to but not exactly in the same site. From the description given, the conviction was irresistible to my mind that it would be impossible by any surgical procedure to remove the whole of the diseased tissue, and that any attempt of the kind would be attended with such danger as might be followed by immediate death and would undoubtedly shorten the duration of his life. His death followed within a few months that of our honored ex-president. As regards the probable future of the case of the Crown Prince, none but those able men who are in attendance upon him, and who must have a knowledge of many details which are essential elements, but which it is impossible to explain to the world, are competent to form or express any opinion of value. In general terms, I may say that his general health is reported to be very good —that the progress of the disease appears to be slow as compared with some cases, and I may add, if it be decided by his medical advisers that partial or entire excision of the larynx should be performed, we have abundant evidence that in a certain number of cases both of these operations have prolonged life to a period when the probability of recurrence is very small. In some cases entire excision has saved life for a length of time; that gives great encouragement for hoping that the ravages of this terrible disease have been arrested. Two such happy results have been reported in this country and several abroad. Dr. Roswell Park, of Buffalo, in June, 1885, removed the entire larynx on acconnt of the existence of this disease in a patient who was himself a medical man. In a letter, dated November 22nd, he writes to me: "The Dr. has a number of relatives in Buffalo, and, as I frequently see one or more of them, I am kept pretty well informed as to his condition. My latest news is so recent as last week, and to the effect that he is as well as ever."

It must be obvious that all new and important operations are followed by a progressive success in their results as the methods of operating are improved in their details and as the after-treatment necessary becomes better known. The percentage of successful results increases in a ratio in proportion to the experience acquired by the increasing number of the operations. Indeed, I may add that it is my conviction that the progressive number of cures of this terrible curse to humanity is in a more rapid ratio than the progressive increase of the frequency of the disease.

Need I say more in the light of the past to point out what may be hoped for in the future from such a hospital as this, under the devoted zeal of the active staff, whose ability, competency and faithfulness to their duty have already been demonstrated in other positions? Can any one have a doubt as to the probable service to humanity which will result from the careful observation and study by such competent men of details that can never be acquired except in a large hospital?

I question whether any, even the most sanguine, has more than a feeble conception of the benefit to the victims of the disease to be here treated, and to thousands of others, that will result from the opening of this hospital.—*New York Med. Jour.*

THE PSYCHOLOGY OF JOKING.

I think punning does not receive enough attention. In spite of Dr. Johnson's well-known dictum, we should not despise punning. Sydney Smith says that it is the foundation of all wit. Supposing three degrees of evolution, I submit that (1) punning is the least evolved system of joking, that (2) wit is evolved out of punning, and that (3) humor is evolved out of wit. Everybody has heard of Sydney Smith's remark—that it requires a surgical operation to get a joke into the head of a Scotchman. But he spoke without distinguishing. The Scotch have a great appreciation of those highly evolved jocosities displaying the humorous, although, no doubt, a scorn of simple, lowly evolved jocosities, such as plays on words. Is is difficult to form a conception of a Scotch punster; yet I have heard an Aberdonian, a physician of world-wide reputation, make a pun.

Punning is well worthy of the Psychologist's attention. I seriously mean that the analysis of puns is a simple way of beginning the methodical analysis of the process of normal and abnormal Mentation. This, I think, I can easily show.

Vision is stereoscopic; in a sense it is slightly diplopic, for there are two dissimilar images, although there seems to be but one external object, as we call it. To borrow the ophthalmological term. we can say that Mentation is "stereoscopic;" always subject-object, although, we often speak of it as single ("states of consciousness," etc). Just as there is visual diplopia so there is "mental diplopia," or, as it is commonly called, "double consciousness."

Now I come back to punning. We all have "mental diplopia," when hearing the answer to a riddle which depends on a pun—"When is a little girl not a little girl?" Answer: "When she is a little horse (hoarse)." The feeble amusement we have in the slightly morbid mental state thus induced is from the incongruous elements of a "mental diplopia." The word "hoarse" rouses in us the idea of a little girl who has taken cold, and the same sounding word "horse" rouses in us the idea of a well-known quadruped at the same time. We have the sensation of complete resemblance with the sense of vast difference. Here is, I submit, a caricature of the normal process of all mentation. The process of all thought is

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"stereoscopic" or "diplopic," being the tracing of relations of resemblance and difference.

To call punning a slightly morbid mental state may be taken as a small joke. But I do not think it very extravagant to describe it so; it certainly is not if it be a caricature of normal mentation. A miser has been defined as an amateur pauper; the habitual drunkard is certainly an amateur lunatic. And in the same style of speaking we may say that—well, we will say that punning is playing at being foolish; it is only morbid in that slender sense.

The word "play," carries us on in a slightly different direction. Jocosities of all degrees of evolution (1) puns; (2) witticisms; and (3) humorous statements are the "play of mind,"—play in the sense in which the word has been used in the remark that the "æsthetic sentiments originate from the play impulse." A further definition of play, as thus used, is given in the following quotation from Spencer:—"The activities we call play are united with æsthetic activities, by the trait that neither subserve, in any direct way, the processes conducive to life" (*Prin. Psych.*, vol. ii, p. 627). There would be a great intellectual advance—due, I presume, to Internal Evolution—when man began to value things for their beauty apart from their use: one sign of his having "got above" his mere animal self. For it showed that over and above mind required for mere animal existence, he had some surplus mind for greater ends of life. So I contend that our race owes some respect to the first Punster. For the dawn of a sense of the merely ridiculous, as in punning and simplest jokes, shows the same thing as the dawn of æsthetic feeling—surplus mind, something over and above that required for getting food and for mere animal indulgence. All the more so if punning be that out of which wit and humor are evolved.

It is not a good sign if a man be deficient in humour, unless he have compensation, as Wordsworth had, in a sense of the sublime, or in great artistic feeling, or in metaphysical subtlety. The man who has no sense of humour, who takes things to be literally as distinct as they superficially appear, does not see fundamental similarities in the midst of great superficial differences, overlooks the transitions between great contrasts. I do not mean because he has no sense of humour, but because he has not the surplus intellect which sense of humour implies. Humour, being the "play" of mind, is tracing deep, fanciful resemblances in things known to be very different. This is "playing" at generalisation, and is only a caricature of the same kind of process which made Goethe declare that a skull is a modified part of a vertebral column.

Now I am about—not really digressing from what I have just said—to say something which sounds very paradoxical: that persons who are deficient in appreciation of jocosities in their degrees of evolution are, in corresponding degrees, deficiently realistic in their scientific conceptions. One would infer this *a priori*. Every child knows that a man born blind has no idea of light, but the educated adult knows, too, that the congenitally blind have no notion of darkness. And I think that observation confirms what *a priori* seems likely—that *pari passu* with the evolution of the sentiment of jocosity (playing at unreality) is the evolution of power of realistic scientific conception—from sense of the merely ridiculous with parallel realistic conception of simple things up to sense of humour, with parallel realistic conception of complex things. But we must be on our guard not to take commonplace realism about simple things to be realism when applied to very complex things. It seems at first glance more realistic to suppose that sourness is inherent in vinegar than that it is always a sensation in some percipient. But that the former hypothesis is very unrealistic is easily seen when we put such crude metaphysics in other words: the doctrine then is that part of the taster's own mind is outside himself. It is possible for the same person to be truly realistic in simple things, and to be intensely unrealistic in complex things. Thus, the really practical man who may tell us that he despises metaphysics, may be crudely metaphysical when he deals with complex things—"explaining," for example, that a man comatose does not move because he has lost consciousness. Surely the truly realistic conception is that the comatose patient does not move any of his limbs from some physical disability, for essentially the same reason that a hemiplegic man does not move his arm and leg.

I now go back to my small joke that punning is a slightly morbid mental state, a "mental diplopia," a caricature of the normal "diplopia" of healthy mentation. From this point I make the assertion that the "physiological insanity" of dreaming is diplopic—a caricature of that of waking mentation. A physician read in the day of the strained relations of European States; in his dream at night he is called in consultation by Bismarck, and advises a course of the iodide of potassium (directions for the application of the remedy were not given). Clearly, there are here two very dissimilar mental states "pretending" to be stereoscopic; manifestly a seeming fusion of ideas of prescribing for a patient with ideas of the hostile attitude of European States. I hope some time to be able to show that such diplopia has the same kind of mechanism as that of the pun—that the two elaborate dissimilar states are held together by two sane, or similar, simple mental states. I go on to remark that in some people there are beliefs as incongruously diplopic as some states in dreams; diplopic in that way to other people, at any rate.

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1. Killing a rabid dog to prevent people already bitten by it going mad. 2. Imagining it to be possible to study what are called "diseases of the mind" methodically, without distinguishing between the physical and the psychical. 3. A cleanly mother, from maternal solicitude, refraining from washing the top of her baby's head, lest it should come to have "water on the brain." 4. Imagining it to be possible to investigate complex subjects without the use of hypotheses; for instance, that Harvey could have made observations and experiments to *prove* the circulation of the blood, without *supposing* before hand that it did circulate. 5. Anointing a blade with healing salve to cure a wound inflicted by the blade.

Once more I go back to punning for a new start, trying to show again by very simple cases that punning is only a caricature of, and therefore, for the psychologist, a valuable experiment on, the process of normal mentation. I take first a case, which is almost, if not quite, a pun, but one made unwittingly. What is called the inelegance of using the same word in one sentence, or in two consecutive sentences, causes mental diplopia. For even if each of the two words has the same dictionary meaning, we must bear in mind that a word loses something of that kind of meaning when forming part of a proposition, losing and taking meaning from its context. Hence, the second time the word comes, there is a faint revival of the ideas it symbolised when used the first time; along with a vivid revival of other ideas it now symbolises; there is a trivial confusion from slight mental diplopia, like that from an ill-understood pun. I now give a more striking example, one in which there is manifest diplopia without confusion.

A smell, say, of roses, I now have makes me think of a room where I passed much of my time when a child. Here clearly is "mental diplopia," and the mechanism of it is quite similar to that of the pun, making allowance for caricature in the latter. For the true process is that the smell of roses, now having, develops what we call the same smell, but really another smell, that of roses once had in the old room. The two scents, linked together, hold together two dissimilar mental states (1) present, now narrowed, surroundings, and (2) certain vague quasi-former surroundings. When the scent of hay or the caw of rooks rouses in us vague pleasurable feelings, the mechanism is of the same kind, but the process is more complex. To further insist on the fact that mentation is stereoscopic, with more or less manifest diplopia, I give an example of mentation which is exceedingly common. Whilst writing I suddenly think of York Minster. Here is mental diplopia—(1) narrowed consciousness of my present surroundings and (2) cropping-up of consciousness of some quasi-former surroundings. Of course something, whether I can mentally seize it or not, in my present surroundings, has developed a similar something associated with York surroundings.

Recapitulating, I say that the process of all thought is double, in degrees from a stereoscopic unity of subject and object to manifest diplopia (two objective states for one subject). The process of all thought is tracing relations of resemblance and difference, from simplest perception—to say what a thing is, is to say what it resembles and differs from—up to most complex abstract reasoning. The formula of the caricature of the normal process of thought is the "pretence" of some resemblance between things vastly different—from punning, where the pretended resemblances and real differences are of a simple order, up to humour, where both are highly compound. We have the "play" of mind in three degrees of evolution, three stages of increasingly complex incongruousness.

If I had time I could, I think, show that this address on jokes is not itself, merely one big poor joke, but that what has been said applies closely to the study of "mental symptoms" in serious diseases. I should begin the new stage of the inquiry with the quasi-healthy feeling of "reminiscence," clearly an element in a mental diplopia. For my task would be an endeavor to show that all morbid mental states are departures from normal mental states in particular ways—that, for example, the process of mentation in the maniac is but a caricature of that in healthy people. Thus the reminiscence, although it is almost pedantic to call it morbid, is really a link between perfectly normal and decidedly abnormal mentation. For reminiscence occurs in slight attacks of a certain variety of epilepsy. as do other voluminous mental states ("intellectual aurae)," I call them all "dreamy states." These cases I should take next. There is clearly in them morbid mental diplopia, and yet this is traceably only a gross caricature of normal mental diplopia, being linked on to it by the reminiscence occurring in people we call healthy. And I think it could be shown that they have the same kind of mechanism as puns have. Next, taking these miniature and transient cases of insanity, and other cases commonly called insanity, I should try to show that the comparison of mentation with vision is of direct value.

In the symptomatology of a patient who has paralysis of an ocular muscle, there are many elements. There is morbid visual diplopia; in insanity there is morbid mental diplopia. The ophthalmologists "true," and "false" images have their analogues in the "true" and "false" mental states in the cases of epilepsy mentioned. In the former, when the divergence of the eyes is slight, there is more visual confusion; in the latter, when the dissolution of the highest centres is

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shallow, there it more mental confusion. In the former, when the divergence is great, diplopia ceases (the patient, the opthalmologist says, "neglects" the false image): in cases of epilepsy, upon deeper dissolution than that with which there is the "dreamy state," the actions are considerably coherent. The "erroneous projections" of the former have their clear analogues in the hallucinations of many cases of insanity.

Believing that all diseases are to be looked on as flaws in different parts of one Evolutionary system, I urge the "Comparative study of Diseases of the Nervous System." I submit that, recognising the enormous difference between insanity and ocular paralysis, a profitable comparison and contrast may, nevertheless, be made, which will further a better knowledge of both. I do not mean simply that ocular paralysis may be taken as an illustration, to simplify explanation of a case of insanity, but also that, both being examples of Dissolution, the very same principles are displayed in each.—Dr. Hughlings Jackson, in the *Lancet*.

THE THERAPEUTICS OF THE URIC ACID DIATHESIS.

The treatment of the uric acid diathesis was made the subject of discussion before the Section of Pharmacology and Therapeutics at the Dublin meeting of the British Medical Association. The subject was introduced by Dr. Burney Yeo in an address which commanded the attention of a large auditory for nearly an hour (*Lancet*). He said he would endeavor to confine himself to the practicable aspects of the question. The pathology of the condition in which uric acid was present in excess in the organism was still doubtful. Murchison regarded the liver as primarily at fault, and with this view Professor Latham was disposed to concur. According to this theory, the essential condition present was the non metabolism of glycosin into urea. Garrod, on the other hand, regarded the kidney as the active producer of uric acid. Ebstein placed its production in the muscles and marrow of bones. Frerichs held that the essential point was the perverted metabolism of albuminoid substances into urea. Bouchard denied that the presence of uric acid in excess was the chief feature in the morbid condition in question. One thing appeared certain,—that the uric acid diathesis had its foundation in the imperfect metabolism of food, especially albuminoids. He (Dr. Yeo) would define it as "mainly a disturbed retrograde metamorphosis." Turning to therapeutics, he would point out that in all therapeutic questions three things had to be taken into account: 1, the pathogenic factor; 2, the constitutional factor; 3, the remedial factor. The two former were highly variable, and only the last had any claim to constancy. He would deal with the various remedies in detail. 1. Diet, regimen, and mode of life. There could be no doubt that, next to heredity, errors in eating and drinking were the most potent causes of the uric acid diathesis; but it was an error to assume that all gouty people had been intemperate. Ebstein regarded a tendency to obesity as a potent factor in the production of the condition, and advocated a dietary to check fat formation. He did not, however, entirely exclude fatty matters from the dietary. He allowed cabbage, peas, etc., but no turnips. He (Dr. Yeo) thought that no good results followed from prohibiting the moderate use of animal food. Senator advises a minimum of fats, and especially prohibits the yelk of egg. As regards alcohol, he thought it would be better for some persons, especially women, to abstain altogether; in others a moderate use of alcohol was not objectionable. Malt liquors and bad wines were to be carefully avoided. He regarded the cheap clarets in common use as particularly injurious. He held strongly that the *quality* rather than the *kind* of wine was the really important point. As a general rule, those wines were best which had a diuretic action. A small quantity of alkaline water might be advantageously added to the wine. Still Moselle was good, and was now much used. Exercise in moderation was important as tending to improve the general health, but it must be borne in mind that gout was very common in those who took a great deal of exercise, and that women, who led comparatively inactive lives, suffered far less than men. A warm, dry, equable climate was useful. All climatic conditions which interfered with the action of the skin were hurtful. He advised the regular use of considerable quantities of water, preferably hot water. Turning to drugs, colchicum had been much assailed of late years, but he had never observed the ill effects which some authorities attributed to its use. Garrod, Sir Thomas Watson, and Graves had all borne witness to its value. He believed that its chief action was upon the liver. It had also sometimes a diuretic and diaphoretic action.

As regarded the salicylates, he could not agree with Germain Sée that salicylate of sodium was the best remedy which we possessed. The benzoates had been highly recommended, but he was not convinced of their utility. Guaiacum, in spite of the high commendation of Garrod, seemed to be generally neglected. Iodide of potassium was very useful. Alkalies were in almost universal favor, but Dr. Latham did not think highly of them. There was a disposition at present to exalt unduly the merits of lithium, in comparison with sodium and potassium. He thought bicarbonate of potassium was the most certain diuretic of the group. Magnesia and lime had been largely lost sight of, but the success attending the administration of the waters

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of Contrexéville (which contained large quantities of these salts) should direct our attention to them. He thought Bath was likely to be as useful as Contrexéville, and it was a much more attractive place. The mineral constituents of waters at these two resorts were similar.—*Therap. Gaz.*

LAPAROTOMY FOR TUBERCULAR PERITONITIS.

A most interesting discussion on the treatment of this affection took place at a meeting of the Clinical Society of London, October 28th, with papers by Mr. Barwell and others. The *crux medicorum*, which has long been given over by medicine, seems to have been taken up enthusiastically by the broad shoulders of surgery. The *Medical Press*, commenting on the discussion, says:

"The number of cases on record in which laparotomy has been performed for the relief of tubercular peritonitis is now sufficiently large to enable us to form some opinion as to its propriety and as to its effects. Mr. Treves quoted thirty-six cases, in only six of which recovery did not take place, and this alone would suffice to warrant further trials when we consider the intractable nature and fatal tendency of the malady. A series of ninety-six cases brought before the Congress of German Surgeons yields almost, if not quite, as favorable statistics. In view of these successes, it may almost be laid down as a rule of treatment that, whenever we detect symptoms of tubercular peritonitis, the proper course is to open the abdomen and cleanse the peritoneum. The extraordinary impunity with which the peritoneal cavity can be manipulated under these circumstances is not the least interesting feature of the operation. The fact has long been recognized that, when the membrane has been the seat of chronic inflammatory changes, it is less apt to resent interference than under normal conditions, and advantage is taken of this to subject it to treatment which would have inspired surgeons of but a few years since with unmitigated horror."

Evidence was presented in the discussion that concomitant tuberculosis of the lungs is often favorably influenced by the amelioration of the abdominal disease. The accuracy of the diagnosis in some of the cases of most marked benefit from surgical treatment was confirmed by microscopical examination of the granulations with which the peritoneum was covered.

In several of the cases alluded to, the ascites had been first treated by aspiration, which, though it relieved the mechanical distress, did not have the effect of the more daring operation which was subsequently performed. Most operators attach great importance to the use of the drainage-tube, which is generally brought out through the abdominal wound, but Mr. Barwell did not employ it in the case which he brought before the Society, and objected to it as unnecessary, and even useless, seeing that a tube from the front could not be reasonably expected to drain the abdominal cavity of a patient lying on the back. In any case, he maintained that it was preferable to give the patient a chance of doing without it for the first twenty-four hours, even if it had subsequently to be inserted. Although Mr. Treves was firm in his advocacy of the use of the tube, which he considered a principle of the treatment, one of his cases tended to prove the contrary, for, although the tube was inserted, subsequent accumulation took place, in spite of all the efforts made to obtain a free discharge. It is not without interest to note that in this particular case, the patient being a child, Mr. Treves went a step further, and injected a solution of iodine, again not only with no untoward result, but with positive advantage to the patient, whose temperature then and there fell to normal, and never after rose.—*Boston Med. and Surg. Jour.*

IRON AND SODIUM SALICYLATE IN RHEUMATISM AND RHEUMATIC AFFECTIONS.

For some four years I have been in the habit, in certain classes of rheumatic affections, usually chronic, of employing a combination of tincture of chloride of iron and sodium salicylate, prepared according to the following formula, which I have been informed by Dr. Rice, of Bellevue Hospital, New York, and other experienced pharmacists, is the first successful combination of these drugs in an eligible preparation. In the House Pharmacopeias of the Philadelphia Polyclinic, where it was first used in 1883, and of Jefferson Medical College Hospital, it is known as the Mistura Ferro-salicylata:

R. Sodii salicylatis, ...	℥ iv.
Glycerini, ...	f ℥ ij.
Ol. gaultherii, ...	♏ xx.
Tinct. ferri chloridi, ...	f ℥ iv.
Acidi citrici, ...	gr. x.
Liq. ammonii citrat. (B.P.), q. s. ad	f ℥ iv. M.

The mixture is clear, and is not unpalatable. The usual dose is two fluidrachms in water, three or four times a day. The quantities and proportions of the active ingredients may, of course be varied according to the intended frequency of dosage and other circumstances. In cases which are rather subacute than chronic, it is sometimes given every second hour, until the physiological effects of the salicylate are produced, and then at longer intervals. I have also employed it, with apparently good results, in acute articular rheumatism, and in some cases of acute tonsilitis, especially in that group where the diagnosis is at

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first in doubt between rheumatic angina and diphtheria. Some of my friends have reported to me good results in acute rheumatism. Its particular applicability is in that group of patients in whom Dr. Russell Reynolds strongly urges the iron treatment—a recommendation endorsed with equal earnestness by Bartholow—namely, anemic, delicate, poorly-nourished or broken-down individuals, usually old people, children or adolescents, but met with at all ages, whether the disease be acute, subacute or chronic. In adults, indeed, as a rule, and quite frequently in children, even when the disease is not plainly chronic, the patient will give a history of repeated acute attacks; or there will seem to have been a long series of recurrences, with intermissions of doubtful health. Recognizing the weight of the testimony in favor of tonic, and especially ferric, treatment of such cases, and yet desiring to obtain also the specific action of the salicylic compounds, I succeeded, after several ineffectual trials, in obtaining a clear mixture by the use of the formula given above, and four years' experience, latterly with the ample material furnished by the out-patient department of Jefferson Medical College Hospital, has abundantly confirmed my expectations of its usefulness.—Solomon Solis-Cohen, M.D., in *Med. and Surg. Reporter.*

SOME POINTS IN THE CARE OF CHILDREN.

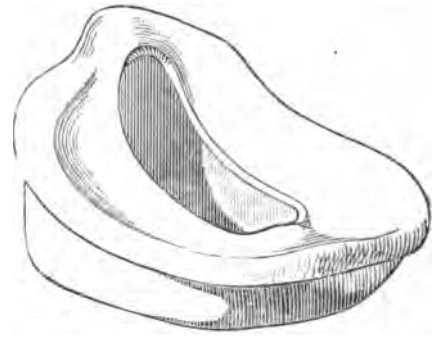
A writer in the St. Louis *Globe-Democrat*, evidently a discreet medical man, says some things so true and so important for physicians to appreciate, that we think it well to repeat certain of them for the benefit of our readers. In the first place, he dwells upon the value of putting children early to bed, and having them rise soon after they wake. He holds that it is not only cruel, but also mischievous, to compel children to lie awake in bed for hours to prevent them from disturbing older people, The morning sun is most essential to plant life. It is equally true that the morning sun is most valuable for animal vigor, and this includes human beings.

Again, this writer opposes study late in the afternoon, and much more in the evening, for young children; and emphasizes, by a striking illustration, the advantages of play for children, instead of straining their little brains. He also expresses what we regard as a wise disapproval of putting children to bed immediately after supper. Let them, he says, have a chance for light exercise and sport. Above all he depreciates the stormy season which often follows supper, when the parents wish a child to go to bed and the child does not want to. We appreciate, of course, the advantages of discipline and regular habits; but we agree with the writer referred to in deprecating the practice of forcing a child te bed immediately after the last meal of the day.

One more point which we would refer to in this interesting article is that each child should, if possible, have a bed to itself. For physical and moral reasons we believe this to be desirable; and we share the writer's convictions that the habit of sleeping alone is one which is advantageous to adults also. As those who have great opportunities for moulding the future of the children committed to their care, our readers will estimate at their proper worth the homely truths which we have just cited; and no good physician, we are sure, will consider it beneath the dignity of his calling to study matters which are so important to the happiness and welfare of the "little ones." —*Med. and Surg. Reporter.*

A NEW BED PAN.

We notice with some satisfaction an attempt to break away from routine in the matter of bed pans, and to devise something more in accordance with comfort, convenience, and common sense. Such an effort has been succeeded by the production of what is known as the "Anatomical Bed-Pan," by Mr. C. F. Forshaw, a dentist, of Brad



ford, who would appear to have discarded for the nonce the upper molars for their resultants at the other end. It is modelled from the human nates, etc., and is very comfortable and easy of use. It is applicable to both sexes, and as the cover is movable, it admits of being thoroughly cleansed. We can strongly recommend it as a noteworthy improvement on the shapes hitherto supplied.—*Med. Press and Circular.*

POISONING BY ANTISEPTIC SOLUTIONS OF BICHLORIDE OF MERCURY.—Mr. J. A. Pepper calls attention (*Lancet*) to the source of danger to life from the use of bichoride of mercury in the form of very weak solutions—*e.g.*, one in 1,500 or 2,000. I understand, he says, that in midwifery practice it is not at all uncommon to employ injections of the strength just mentioned for cleansing purposes,

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not only as a corrective against septic discharges, but also as a prophylactic. Where the patient is free from organic disease of the kidneys, one has little need to fear untoward consequences from the treatment under consideration. I am aware of two cases of death from acute inflammation of the bowels following closely on the injection of very weak mercurial solutions into the vagina shortly after parturition. As in each instance no other cause of the fatal complication could be discovered, there is little doubt that the acute irritative lesions in the intestines were due to the bichloride in the course of its elimination. The action of the salt was concentrated, so to speak, in this particular region by reason of grave renal affection. In one of the two cases I made a very exhaustive post-mortem examination. The whole of the small and large intestine was acutely inflamed. There were thousands of hemorrhagic patches, punctate and irregular in shape. There were a few minute recent ulcers. The catarrhal congestion was extreme. Lymph was effused into the substance and upon the surface of the mucous membrane. Slight general peritonitis seemed to have started at the middle of the colon, where the intestinal lesion was more marked than elsewhere. The stomach was not affected. The kidneys were in an advanced state of fatty degeneration. No aperients had been administered to the patient, but a solution of bichloride of mercury (1 in 2,000) had been injected into the vagina to prevent decomposition of the lochia. Profuse diarrhea ensued, and continued until death. The body temperature was never raised, and latterly it was subnormal. I was at a loss to account for the ultimate cause of the diarrhea and its fatal consequences, until the circumstances were explained to me by an obstetric physician who was present at the necropsy, and who had witnessed a precisely similar case in his own practice. The lesson to be learnt from the foregoing narrative is—that even a very attenuated solution of a mercurial salt should not be employed as a vaginal injection without first ascertaining the state of the kidneys by an examination of the urine.—*Med. News.*

CAUSE AND CURE OF A CERTAIN FORM OF BACKACHE.—Early in the year 1881, in a note which was published in a weekly professional journal, I asked the attention of my brethren to a form of backache which had not so far as I know, been described before. I desire now to refer to this subject again and to record that my further experience in practice has confirmed my previous remarks upon the point in question.

Subjective symptoms are always important diagnostic signs, and they are often clear therapeutic indications. Among such sensations backache is frequently a leading symptom, and also one which is pressingly dwelt upon by patients. Of backache there are divers forms. Dr. George Johnson, in an able clinical lecture, and Mr. William Squire, in a practical memorandum, have drawn the attention of the profession to many of these. But they have not mentioned a variety of backache in which the cause of the pain is traceable to the condition of the large bowel. I find that some patients complain of a pain, aching, dull and heavy in character, and extending "right across the back." When asked to point out its position, they indicate this by carrying a hand behind the trunk and drawing the extended thumb straight across the back, in a transverse line about half way between the inferior angels of the scapula and the renal region. This pain I venture to attribute to a loaded colon; I conclude I have correctly found its proximate cause in fecal accumulation in the large intestine. I have found it disappear after the exhibition of an efficient cathartic. This form of backache is a concomitant of habitual constipation, and is especially significant of the alvine sluggishness of sedentary persons. In such a condition as I have stated elsewhere, I find aloes, given in combination with iron, to yield the best results. We owe the valuable suggestion of combining iron with aloes, when aloes is given for laxative purposes, to the late Sir Robert Christinson. He showed that the cathartic property of aloes is much increased by its combination with sulphate of iron. Dr. Neligan, Dr. Kent Spender and Dr. David Bell have confirmed this experience. I prefer Socotrine aloes, and I give of it one, two or three grains in a pill, combined with a quarter of a grain of sulphate of iron and one grain of extract of hyoscyamus. This pill should be taken every night. We must aim at producing a full alvine evacuation after breakfast. When a saline cathartic is indicated, I usually employ the old-fashioned Rochelle salt. This "goes" well with tea, coffee or cocoa. One or two tablespoonfuls may be taken at breakfast, dissolved in a large cupful of one of these beverages. —Sir James Sawyer, in *Lancet.*

THE TREATMENT OF FACIAL NEURALGIA BY ANTIPYRINE.—One by one the non-inflammatory painful affections are wheeling into line as amenable to treatment by antipyrine. Germain Sée, in speaking of this subject, says: "To complete the series of painful affections of the head which have yielded to antipyrine, I must mention facial neuralgia. I have notes of seven cases of tic douloureux, all of a very grave kind, two of which were completely cured. One resisted antipyrine absolutely, while four have experienced marked amelioration and appear to be in the way to recovery. These patients had been suffering from tic douloureux from twelve to eighteen years During this long and frightful period of suffering, these patients had never been able, without pain,

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to open their mouths, to speak, to chew their food, to swallow hot or cold liquids, to expose themselves to a current of air, or to enjoy the least respite, even under the influence of morphia or salicylate of soda. These four patients are enabled now, after two months of treatment, to enjoy that freedom from pain which they had not before known for years, and to live like the other members of the family. The treatment has consisted in the daily use of 75 grains of antipyrine (15 grains every four hours, till the entire quantity was taken). I have also relied very much on the subcutaneous injections of antipyrine—8 grains dissolved in the same weight of water, and the whole injected for one dose—but as these injections have sometimes been painful, I have lately modified my formula, as follows: I now dissolve my 8 grains of antipyrine in 22 grains of water, to which, in order to enhance the effect, I sometimes add $\frac{1}{8}$ grain of cocaine. These injections act with surprising rapidity and energy. I now rely on these hypodermic injections in all the inveterate cases, and during the painful paroxysms combine the hypodermic treatment with the internal administration of 75 grains a day. The results in this most grave and most intractable of painful disorders have been unprecedently gratifying and surprising."—*Medical Record.*

COLD WATER ENEMATA IN CATARRHAL JAUNDICE.—Ten years ago Krull recommended a method of treating catarrhal jaundice which had at any rate the merit of simplicity; it was to give daily large rectal injections of cold water. The water on the first day was to have a temperature of 59° F.: on the following days the temperature was gradually raised to about 72° F. Loewenthral and Eichorst have lately reported very good results from this treatment, and E. Kraus has found it equally successful in children, the quantity used in their case being as much as one litre ($1\frac{3}{4}$ pint). Dr. A. Chauffard, in a recent number of the *Revue de Médicine*, reports very favorably of the method. He states that the large injections are well borne, and are generally retained for five or ten minutes; they produce only slight colicky pain, and after the stool has been passed the patient feels considerably relieved. Improvement begins almost at once; pruritus and yellow vision disappear with great rapidity; the fæces resume their natural color, and the bile pigments disappear from the urine in from two to eight days. The mode or action of this method of treatment is not very clearly made out, but it seems to be proved that one effect is to cause forcible contractions of the gall bladder. The bile is secreted under very low pressure, and as the experiments with toluylendiamine have shown, deep jaundice may be produced if the bile becomes concentrated and thicker than usual. It is quite possible, therefore, that active contraction of the gall bladder might overcome the slight obstacle at the aperture of the ductus choledochus; such an effect would be doubtless favoured by increased peristalsis of the duodenum.—*Br. Med. Jr.*

THE ETIOLOGY OF PHTHISIS.—In an interesting article on the etiology of phthisis *(Philadelphia Med. Times)*, Dr. R. W. Philip, of Edinburgh, Scotland, reaches the following conclusions:

1. In view of the work of Koch, it is impossible to avoid admitting that a casual relationship exists between the tubercle bacillus and the phthisical process. 2. The mere predication of this relationship is not sufficient in explanation of the clinical facts and the generally fatal termination of such cases. 3. The usually received explanations of the *modus moriendi* in phthisis are insufficient. 4. It appears probable that the lethal influence of the bacillus is due to the production thereby of certain poisonous products. 5. Clinical and experimental evidence appear to indicate that the morbid secretions from the respiratory surfaces afford a good medium for the growth of the tubercle bacillus and, presumably, for the elaboration of such products. 6. Such a product is separable from the carefully selected and prepared sputum. 7. This product is possessed of well-marked physiological properties, being eminently toxic to frogs, mice and other animals. 8. The toxic properties of the product are, speaking generally, depressant. 9. More particularly they include a marked depressant influence on the heart. 10. This depressant influence seems to be exerted through the medium of cardio-inhibitory mechanism. 11. The toxic action of the product is more or less completely opposed by atropine. 12. The amount of the product which may be separated appears to bear a distinct relation to the abundance of the bacillar elements present. 13. Absorption of the poisonous product most probably occurs by way of the lymphatic circulation.

WHAT THE MORPHINE HABIT WILL DO.—The ingenuity of morphine victims to hide their vice has never been better illustrated than in the case of a young girl at a fashionable young ladies' boarding school, near Philadelphia, as told by a contemporary.

The disclosure came about accidentally. When the young student returned to the school this fall she had periods of deep despondency, and often asked the privilege of going to the room in the seminary set apart as a hospital. There she would lie for a day at a time, only rousing herself when any one approached the table, on which stood an ink-bottle and a stylographic pen. The nurse having occasion to send a message to the doctor, attempted to write with this pen, the young girl at that time being asleep. The pen not only refused to write, but the practiced eye of the

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nurse instantly recognized in the point the puncturing needle of a hypodermic syringe. This led to an examination of the ink-bottle. It was a four ounce bottle, but there was no ink in it. It was painted black on the outside, and contained Magendie's solution of morphia, enough for 128 one-half grain doses, or sufficient to last till the Christmas holidays. The principal of the school was summoned immediately, and the sleeping girl's arm bared. It was punctured from the shoulder almost to the hand, and the livid blue marks confirmed the suspicion, which was changed to absolute certainty, by the small abscess which had begun to form in the forearm just above the wrist. The habit had been formed about two months only, and there is a possibility that a cure can be effected.

INCUBATION OF THE INFECTION OF MEASLES.—Dr. Sevestre, in a thesis recently published, demonstrates the fact that the period of incubation in measles is almost invariable—between thirteen and fourteen days elapsing between the moment of infection and the appearance of the rash. The fever appears four days earlier, viz., between the ninth and tenth day. Another fact, and one of far greater importance, has been determined by Dr. Sevestre, and that is that the infective power of the disease commences with the first moment of prodromic manifestations, viz., of the appearance of fever, and continues with unabated virulence until the eruption, after which its infeetive power diminishes very rapidly, vanishing entirely on the fifth day thereof. In the analysis of many hundred cases, not one instance of infection after the fifth day of eruption (the eighteenth or nineteenth after exposure) could be found. The practical bearing of these facts are manifest. They furnish a sure and valuable guide on points upon which the profession and laity have strangely blundered hitherto, viz., the proper time for isolation of the patient. The habit of sending off the apparently unaffected members of a family, while the fever in an affected one is at its highest, is the surest method of transporting the infection and creating new foci of disease.—*St. Louis Med. Jour.*

INOCULATION AGAINST TYPHOID FEVER.—Inoculation against typhoid fever is the latest sanitary possibility. Brieger has discovered that typhoid bacilli secrete a ptomaic poison which he has called "typhotoxine," the injection of which into animals seems to have caused lesions very similar to those caused by typhoid fever in man. As a result of researches these conclusions appear: 1. The symptoms and alterations observed in animals in which culture of typhoid bacilli had been injected are due to the toxic substances secreted by these bacilli. 2. The noxious germs which secrete the typhotoxine are reproduced in the intestinal canal. From these the ptomaine is taken up by the circulation and carried to all the organs liable to be affected by this poison. 3. It is most probable that the same takes place in abdominal typhoid fever of man. 4. A first infection insures immunity against injurious effects of a later infection, even of large quantities of the toxic substance. 5. Further experiments and careful clinical investigations are necessary in order to establish a scientific support of the theory of immunity from injections of sterilized cultures containing not more than a determined quantity of typhotoxine. 6. In case this theory be an ascertained fact, the reproduction of the same immunity in man would be justified by commencing with very minute doses of typhotoxine, which would be gradually increased according to the results obtained.—*The Sanitary News.*

A READY METHOD OF REMOVING FOREIGN BODIES FROM THE ANTERIOR NARES.—Physicians are often called upon to remove peas, buttons and various substances from the nostrils of children who have themselves introduced them there. A ready method for removing such substances is described by Mr. T. Osborne-Walker, in the *Lancet*, where he states that recently a little boy was brought under his care with a button tightly impacted in the angle between the vomer and os nasi, at the bridge in the right nostril. Ineffectual attempts at extraction had evidently been made, as shown by blood oozing from the nostril, and some, coagulated, adherent to the button, partially concealing its outlines from view, and also by the button being fixedly jammed in. In such cases, to prevent struggles and interruption, the child's arms, hands and legs should be first confined, by folding tightly around these and the body a long, clean apron, and then placing the child on an attendant's lap, facing the window, while the operator stands behind the patient, and, bending over and depressing with two fingers of the left hand the apex of the nose, to admit as much light as possible upon the object to be removed, with the right hand very carefully to avoid its descent into the pharynx or larynx, the spoon end (with the concavity directed forward) of an ordinary pocket-case director should be introduced, with which at once with a simple lever movement or jerk the foreign body may be readily ejected.

By attention to the following points the removal is instantaneously effected: The close confinement of the hands, arms and legs by a shawl, blanket or apron; a good light; a reliable person to securely hold the child; the position of the operator behind the patient; depressing well the apex of the nose to obtain a good view of the object; and, lastly, getting the concave face of the spoon of a director fairly behind the body before making the forward lever movement.—*Amer. Med. Digest.*

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OXYGEN IN PUERPERAL ECLAMPSIA.—A. Bompiani reports, in the *Osservatore*, September 25th, 1887, two cases of eclampsia with albuminuria, occurring during pregnancy and during confinement, in both of which he employed oxygen. In the first case, which was proceeding to a fatal termination, he endeavored by the use of oxygen to obviate the asphyxia, which transiently developed, and was dependent upon the condition of the lung; while in the second case, which survived, oxygen was employed as a last resource, and effected the disappearance of the anasarca, as well as of the convulsions.

The first patient, was a young woman twenty-seven years old, who, at the end of pregnancy, was seized with convulsions, which occurred every fifteen minutes. Bromide of potash, chloral hydrate, leeches, warm vaginal douches, subcutaneous injections of morphine were without effect, and coma and asphyxia were strongly developed. Inhalations of oxygen produced slight improvement; the child was delivered by forceps; but the patient died after nine inhalations.

The second patient was a young woman at the end of pregnancy, who was seized with violent convulsions. A living child was delivered by the forceps; but, after delivery, fresh paroxysms developed, against which inhalations of oxygen and injections of ether were successfully employed.—*Deutsche Medizinal-Zeitung.*

DURATION OF LIFE IN MODERATE DRINKERS.—The great insurance companies of Great Britain have, by their official action, pronounced the teetotalers longer lived than those who make even a moderate use of spirituous liquors. The companies in question have for a series of years kept separate registers of all their beneficiary members, the total abstainers being classed apart from the moderate drinkers. As a result of these records, they find the advantage in respect to longevity decidedly in favor of the teetotaler. One of the largest and oldest of these companies, which has kept separate registers for twenty years, declares that, among the strictly abstaining class, the real mortality has fallen short by thirty per cent. of the ordinary expectancy; while fully ninty-nine per cent. of moderate drinkers have attained this expectancy. Caine, a member of parliament, concludes, from a study of statistics, that the total abstainers have an average duration of life exceeding by six years that of moderate users of even the lighter beverages, such us wine and beer. There are now insurance companies and societies for mutual aid designed exclusively for total abstinence men; the taking of even an occasional glass of any intoxicant vitiates their policy.—*Med. and Surg. Rep.*

SOME OBSERVATIONS UPON PELVIC CELLULITIS.—Dr. Hardon concludes an article in the *Atlanta Med. and Surg. Jour.* as follows:—My object in writing this paper is to submit the following propositions: 1. Acute pelvic cellulitis in the stage of infiltration may frequently be aborted by aspiration. 2. Chronic pelvic cellulitis rarely, if ever, exists except as a sequence of a previous acute pelvic cellulitis. 3. Hardness and tenderness in the broad ligaments, as a result of pelvic venous engorgement, are commonly mistaken for chronic pelvic cellulitis. 4. The treatment of such engorgement by raising the womb in the pelvis relieves the constitutional as well as the local symptoms, and places the patient in a suitable condition for a radical operation more speedily than the methods of treatment commonly in vogue.

HOW TO KEEP ICE FROM MELTING.—It is often a most important matter to be able to preserve ice from melting quickly in the sick room. Various devices have been suggested for this purpose; but the most efficient seems to be one proposed by Dr. Julius Stumphf, in the *Allg. Med. Central-Zeitung.* Dr. Stumphf recommends the use of chaff—barley chaff. He says that a piece of ice placed in a bag, and then in a box or basket containing enough barley chaff to surround it with a layer of five or six inches thick, will not lose 25 per cent. of its weight in five or six days, in a room, the temperature of which is between 70° and 80°. This suggests an excellent way to preserve various articles of food and drink, as well as ice itself.—*Med. and Surg. Rep.*

A NEW DANGER FROM OLD RAGS.—A writer in the *Lancet* calls attention to an unsuspected danger from old rags, cloth and rubbish. A lady, the head of a school, found a miscellaneous mass of such stuff in a number of bolsters and pillows that had been in use in the school. It seems that the practice of stuffing bedding with such material is very common. It is possible that this may account for some of the mysterious outbreaks of of infectious diseases in schools and families.—*Jour. Am. Med Assoc.*

POISONING WITH CHLORATE OF POTASH. — Dr. George T. Welch reports in the *Transactions of the Medical Society of New Jersey*, for 1887, a case of poisoning with chlorate of potash. The subject was a woman, 28 years old, who took at one draught four fluid ounces of a saturated solution of this salt. She had great prostration, straining, vomiting and frequent micturition. Her stomach was emptied with an emetic, and nerve stimulants and opium were administered. The next day she was quite recovered.—*Med. and Surg. Reporter.*

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THE CANADA LANCET.

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The LANCET *has the largest circulation of any Medical Journal in Canada.*

THE CANADA LANCET.

The CANADA LANCET with this issue appears under new management and proprietorship. Owing to the death of Dr. Fulton, this change has been rendered necessary, and henceforth the CANADA LANCET will be the care and property of Drs. J. L. Davison and C. Sheard, of Toronto, who are determined to make the journal, even more than in the past, one which shall take a foremost place among the standard medical journals of the day.

Arrangements are now being made to secure the assistance of many eminent physicians and surgeons in New York and Philadelphia, by whose aid we hope to be able to furnish a reasonable number of original articles in addition to those produced by Canadian medical men. Negotiations are also being made with many eminent European authorities for the same purpose. There will also be a regularly engaged staff correspondent in each important medical centre, whose special duty will be to report interesting matters occurring in hospital practice, and the new management confidently anticipates in the CANADA LANCET a production worthy the continued support a. d confidence of the medical profession of Canada.

It may be mentioned that Dr. Davison has had the entire control of the editorial department of the journal during the past two years. All matters of a business nature should be addressed to Charles Sheard, M.D., 314 Jarvis St., and all editorial matter to Dr. J. L. Davison, 12 Charles St., Toronto.

TREATMENT OF SCARLET FEVER.

This very serious disease has almost as many different modes of treatment as there are physicians in practice. Few specifics are vaunted for its cure, though there are not many diseases which have not had, at one time or another innumerable alleged specific remedies proposed and certified to by the profssion. Mild cases are often the most troublesome, for the patients being mostly children are with difficulty kept in bed or even in one room, and as some of the most dangerous sequelæ only show themselves after the disease has been running for a number of days, this confinement does not always commend itself to the parents, who are with difficulty made to understand the necessity for it. Thus in a mild case, when the child has been playing about the house, as bright and animated as usual, and complaining of but little discomfort, the disease may not be diagnosed with certainty for some days; yet when the dangerous period approaches great care must be taken that the proper hygienic measures are carried out, or what at the outset appeared a simple case may end very unpleasantly or even fatally. Even in mild cases a certain amount of angina and blood deterioration are present, so that some medication is necessary. The old fashioned mixture containing pot. chlor., and tinct. ferri mur., with simple syrup, will prove perhaps as useful as any, by acting upon the throat and tending to prevent the anemia which so frequently follows scarlet fever. The amount of pot. chlor. should to be small, as it acts prejudicially upon the kidneys, producing in some cases uremia and suppression of urine.

For high temperatures the wet pack, or sponging, or a bath gradually cooled down is indicated; but though the profession generally recognizes the usefulness of this therapeutic measure, as also its complete safety, it is rarely resorted to in private practice, for the reason that the public hold still to the belief that the application of cold is dangerous

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in all fevers and especially in the exemthemata. Salicylate of sodium is said to be more efficient for the reduction of the high temperature than the older remedy, quinine, and besides is better borne than the large doses of the latter necessary to influence the heat production. Aconite is not much resorted to, owing to its depressant action. It should be used with great care, especially with children. The majority of physicians have recourse to local medication for the foul and offensive secretions, which in severe cases occur upon the faucial and nasal mucous membranes. Some antiseptic, as boracic acid, may be added to the regular mixture; or if the child be old enough to gargle, the same remedy may be used in this way, while the nasal passages may be kept sweet and clean, and much discomfort avoided by using a spray of some antiseptic solution. One half drachm of carbolic acid to two ounces of glycerine and six ounces of lime water is a very useful preparation. When the glandular symptoms are severe, most practitioners apply compresses of various degrees of heat and moisture to the neck.

As to the hygienic treatment, good ventilation and a uniform temperature is absolutely necessary. The temperature should be from 65° to 70° during the course of the fever, but when desquamation begins, it should be somewhat higher, so that there may be less danger of the patient being chilled at night when partially uncovered. The patient, even in the mildest cases, is no doubt safer if confined to his bed for three weeks, and then for a fortnight more to one room. By this means one of the most dangerous complications, namely, nephritis, is usually avoided. Henoch is not a believer in the theory that catching cold produces nephritis, but as Lewis Smith says, there is abundant evidence that kidney trouble is less frequent in those cases where the patients have been warmly clothed and protected from the vicissitudes of temperature.

The inunction of the whole surface except the face, night and morning, with carbolized oil, 1 in 40 to 1 in 20 is, highly spoken of as a measure which relieves the dryness and itching so irritating to the patient, and at the same time is prophylactic during the desquamation of the skin. Alcohol is an absolute necessity in grave cases, and may be pushed without fear of untoward results. At the same time nutrition must be attended to. Barley water with raw white of egg added, jellies, broths, milk, or some of the prepared foods may be tried according to circumstances.

For the great thirst which is so frequently complained of, ice, black currant water, or a little raspberry vinegar will be found grateful. The cerebral symptoms are perhaps best treated by the application of cold to the shaven head.

Tonic medication should be continued during and for some time after convalescence, to counteract the anemia which is usually present.

IRON IN ENTERIC FEVER.

The trend of modern therapeutics is to constantly seek after some new thing. A rivalry appears to exist among the profession as to who shall be the first "by whom the new is tried," to the great danger that older remedies of established virtue may not only be laid aside but wholly lost sight of. If, in every case, these novelties proved of equal or superior utility, their rapid introduction and frequent administration, by all who desire to advance with the age, might be justified. But it is against all experience that such results could be anticipated, or that more than a small percentage could even be equal to those older remedial agents which have been established by the critical test of time.

A strong probability, therefore, clearly exists, that many of the new and much vaunted remedies may supplant more valuable medicines, to the disadvantage of both patient and physicians, the possible retrogression of medical science and the discredit of the profession.

Among the great variety of remedies of alleged utility in typhoid fever, we trust with some confidence, born of experience, in iron, and especially to the tinct. of the muriate. From its well established therapeutical virtues in restoring to health those suffering from impoverishment of the blood, and evil effects resulting therefrom, and its undoubted potency in antagonizing the consequences of morbid alterations of the blood, and the dyscrasia produced by many diseases; we conclude that iron should be useful in that condition of the blood produced by enteric fever.

Hydrochloric acid has long been found useful in this malady, and by combining with iron, we are convinced that its virtues are greatly enhanced.

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Tinct. of iron meets several of the indications, independent of its constitutional effects. It is an astringent, an antiseptic, and combined with quinine, a most potent stomachic tonic. By its administration, it is almost directly applied to the locality in which the disease is seated, and benefits the diarrhea, checks the tendency to hemorrhage, acts antiseptically on the contents of the bowels, and possibly on the ulcers, and, we have, found agrees with the stomach as well as most other remedies. We are aware that some recent authorities dispute the correctness of some of the views hitherto entertained in reference to the therapeutical qualities of iron, its mode of action, and effects. Yet we hold that its evident utility in many diseases where the blood is impoverished or morbidly altered, cannot be successfully disputed. Experience has taught us that it is eminently useful in enteric fever. We have employed it for over ten years, in addition to the usual approved remedies, and have made it the central remedial agent in this disease, around which other subordinate remedies were prescribed, as circumstances seemed to indicate. If permitted to found an opinion on the results attained, we can truthfully assert that it is actively serviceable. We admit it is possible that the very satisfactory results may not have been attributable to the iron; but this is not probable. We know that we have been more successful in the treatment of typhoid since we began its use than before. During the past year we havetreated no inconsiderable number of cases, without a single death. That it is destructive to, or prevents the multiplication of typhoid bacilli, we know not, nor are we in any sense assured as to what its manner of action is, bnt we believe firmly in its value in this disease. Of course we do not advocate its exclusive use in any case, but as it does not in any way interfere with the usual approved treatment, and can be administered without risk, we bespeak for it a trial at the hands of the profession, that fnrther experience may either establish its value in typhoid, or prove its worthlessness, and relegate it to the extensive list of useless remedial agents for that disease.

THERE are fifteen thousand nurses in Great Britain. Mr. Henry C. Burnett is now advocating the establishment of a national pension fund for them and for hospital officials.

CHIAN TURPENTINE IN THE TREATMENT OF UTERINE CANCER.

The question of the curability of this scourge by the use of Chian turpentine is still causing some debate. Mr. Clay, of Birmingham, was the first to speak well of the treatment. From time to time cases of cures have been published in the various medical journals. Mr. Clay, as late as 1881, wrote to the *Lancet* as follows:—

"An enlarged experience, however, has confirmed the statements made in my original paper, and I have now the satisfaction of being able to declare that I have nothing to withdraw or to qualify as regards the statements I then made as the result of observation as to the effects of Chian turpentine in uterine cancer."

Unfortunately the number of failures has been so far in excess of successes for this remedy, that few in the profession, in this country at any rate, have any faith in its power to check the morbid growth. We do not know that it has ever been sufficiently tried here to decide *pro* or *con* as to its value. In one case which came under our notice, the patient, who was the daughter of a medical man, was, or thonght she was greatly relieved by its use, but she eventually died of the disease.

The truth as to the value or worthlessness of the remedy is of such vast importance that it would be well if more light could be thrown on the subject. Mr. Elder, of Nottingham, makes an appeal (*Lancet*, Dec. 3) to the profession as follows:—

"From time to time he (Mr. Clay) has favored his professional brethren with repeated cures of cancer by this remedy, and even so recently as in your last week's issue three more examples are given. But what about the failures? In the interest of the public at large, such claims as Mr. Clay makes for Chian turpentine ought not to pass unchallenged by those who differ from him. Unfortunately, examples of cancerous disease are only too common upon whom this remedy (supplied, if necessary, by his own chemist) might be tested by a tribunal in whom the profession at large would have confidence, and the doubt once and for all resolved. If this drug came out of the ordeal triumphantly, then I feel sure there would not be a single dissentient to Mr. Clay occupying a position not inferior to Jenner or Harvey, as one of the greatest benefactors of our species; but if, on the contrary, it is wholly useless as a remedy, then let it drop into a well-merited, and not too premature oblivion."

The suggestion as to where the drug is to be

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obtained is a valuable one. A drug which is not even mentioned in such text-books on Materia Medica as those of Lander, Brunton, and Bartholow, will not be likely to be obtained pure from the ordinary chemist. There seems to be something essentially unscientific in the treatment of such a pathological condition as a cancerous os, by the internal administration of medicine; but equally strange propositions as to the treatment of disease have proved beneficial to humanity, which, after all, is the great end for which we are working.

DISPOSAL OF SEWAGE.

From the excellent report of the Maryland State Board of Health, lately received by us, we take the following conclusions as to the disposal of sewage. They are clear and to the point, and deal with a matter which is becoming of greater interest every day. The whole profession both in the city and country should be aroused to the necessity of more attention being paid to sanitation. When we read of the scourges of epidemics of diphtheria, typhoid and other *preventible* diseases, and consider what they cost the country in cash, it is to be wondered at that the powers that be do not aid the various health organizations more generously, not only by placing adequate sums of money at their disposal for the carrying out of their *absolutely necessary* work, but also by so legislating as to give them the necessary power to make that work a success, not in theory or on paper, but in practice.

The conclusions are as follows:

"1. That the proper disposal of sewage involves the beneficial appropriation of refuse matters, so as to make them actually productive, avoiding interference with those domestic uses of inland waters for which they are properly adapted. 2. That sewage matters should be made available for agricultural purposes, and the results in this respect are limitable only by considerations of expense as weighed against the value of the result. 3. That the great importance of avoiding all sources of unhealthy and offensive effluvia, and of preserving the foundations of buildings and the sub-strata of towns and cities in a dry and clean condition, creates an absolute necessity for relinquishing cesspools and all receptacles for sewage connected with any building or other place, except such as are thoroughly water-tight and for the most part air-tight. 4. That all unhealthy putrescible matters should be removed at short intervals from within the limits of centres of population, either by means of air-tight pipes, or in vessels or tanks hermetically closed. 5. That privy-pits, unless they are perfectly water-tight, will infect, *(a)* the surrounding soil by transudation of their liquid contents; *(b)* the air by exhalations or gasecus emanations through a polluted soil; *(c)* the sources of domestic water supply by percolation through intervening strata of earth. 6. That the use of water from dug wells should be prohibited for drinking and culinary purposes in every instance where privy-pits not absolutely water-tight exist in proximity to or within 1,000 feet of such wells. 7. That there exists between the air of water-carriage sewers and the external atmosphere a constant interchange, and as is the air of the sewer, so will be the air of the street. 8. That without considerable fall or grade, flushing is utterly inefficient for cleansing sewers, except where the matter is carried by pneumatic pressure or aspiration, even in the case of small sewers with large quantities of water. 9. That the impermeability of brick sewers can never be absolute, and, therefore, should they convey excrementitious matters, the surrounding soil and the water of neighboring wells will be at all times liable to dangerous contamination. 10. That excrementitious matters ought to be rigidly excluded from all storm-water sewers. 11. That the epuration of sewage water by the soil alone is not efficient in a sanitary point of view, as has been demonstrated by both experience and chemical analysis. 12. That no system of sewage can be approved, which permits the pollution of either air, water or soil; and that, in order to fulfil the requirements of proper sanitation, all excrementitious matters and kitchen slops should be conveyed from towns by pipes absolutely air-tight, or in hermetically-closed vessels to a point sufficiently distant, where they may be manufactured into a dry manure powder without offence."

SUPERFETATION.—Dr. Godfrey, writing to the *Lancet*, gives the following account of an interesting case of superfetation: "I was called on August 17th of the present year to Mrs. H——, aged twenty-nine, to attend her in her fourth confinement. She stated she was seven and a half months gone and had been in pain all night, with considerable loss. On examination I found a three and a half months' fetus in the vagina, which came away without difficulty. The uterus was large, rising about two inches above the umbilicus, and I could distinctly feel the movement of another fetus. The placenta did not come away, and all pain ceased. I then left her, as there was no hemorrhage or pain, and returning in an hour and a

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half found things *in statu quo*. This state of affairs continued for four days, when the pains returned, and the breech of a child was born before my arrival. I immediately removed the child, still-born, though the nurse informed me that the legs moved after their delivery. The child must have been quite seven months, as the nails were commencing to form and its weight was 4¼ lbs. The placenta of the second child came away naturally, but was followed by a great deal of hemorrhage; there was no sign of a second after-birth attached to it. Traction on the smaller cord failed to detach its placenta, so I introduced my hand into the uterus and removed it piecemeal; it was completely adherent and attached to the upper zone on the right side, measuring about three inches across; it was not putrid. All the bleeding immediately ceased, and my patient made an excellent recovery, without a drawback."

THE VOMITING CENTRE. — Professor Fremas, (*Lancet*) who has been investigating the subject of vomiting, finds that in dogs and cats, section of the medulla at the level of fourth ventricle does not prevent the induction of vomiting by hypodermic injections of apomorphia. By touching different parts of the medulla with a weak solution of apomorphia, so as to induce vomiting, he was able to localize with tolerable precision the situation and extent of the vomiting centre, which he says lies in a small space before and behind the calamus, and in the deeper layers of the medulla. He believes that the absence of vomiting, which is observed in ruminants, rodents, and some other classes of animals, is due to the absence in them of a vomiting centre, or to the very rudimentary condition in which it exists. In a rabbit on which he tried in every way to induce vomiting, no signs of gastric movement of that nature could be detected.

FRACTURE OF COCCYX, WITH SUBSEQUENT SPONTANEOUS REMOVAL.—Dr. W. J. Jolly writes to the *Atlanta Med. and Surg. Jour.* thus:—I was called to Mrs. M., November 1st, 1887, primiparæ, aged 21 years, who was in labor. Nothing unusual occurred until the head was pressed against the coccyx, which did not yield. I applied the forceps and delivered her without any trouble and without any laceration of perineum. Immediately after delivery she suffered intense pain in the region of the coccyx, for which I gave an opiate and examined the bone. Found some displacement which I corrected, supposing it to be fractured. The opiate soon relieved the pain; she did not suffer any more until the 9th day, except some tenderness in the region. She had some slight pain on that day. On the 10th she passed a bone per anum and sent it to me, stating that she thought she had passed a joint of her backbone. Upon examination I found it to be the lowest segment of the coccyx. She has had no trouble since. As I have not seen a similar case on record, I send it to you for publication.

THE BINIODIDE OF MERCURY IN GONORRHŒA. —Dr. C. K. Illingworth writes to *The Br. Med. Jour.* that he finds the biniodide of mercury very serviceable as an injection in gonorrhœa when used in solution with iodide of sodium. He combines it as follows:—

℞.—Sol. hydrarg. bichlor., ... ℥ij.
Sodii iodidi, ... ʒss.
Sol. morph. (B.P.) . . . . . ℥ss.
Sodæ bicarb., ... ʒjss.
Zinci sulph., ... gr.x.
Aquam ad, ... ℥vj.
M. et solve. Ft. inject.

THE ACTION OF SALINE PURGATIVES.—The following are the conclusions arrived at by Lenbuscher (*Edin. Med. Jour.*), as to the action of saline purgatives:—"1. That an exaggeration of the peristaltic movement of the intestine only plays a secondary part in the action of saline purgatives. 2. In whatever manner saline purgatives may be introduced into the intestine, the intestine becomes the site of a great secretion of liquid, which is the principal cause of the purgative action. 3. It is impossible to claim for saline purgatives that they act as a barrier to re-absorption. 4. Saline purgatives introduced into the circulation in sufficient quantity produce constipation."

OUR NEW YORK LETTER.—We regret that owing to the sudden and unavoidable departure of our correspondent from New York, we have no communication from that city in this issue. We shall endeavor to make such arrangements as will ensure for February, and all subsequent numbers,

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a regular letter from our own correspondent in that city, as well as from London and other great centres of medical learning. This will, we hope, place before our readers a useful digest of some of the latest ideas in medical science, with methods of treatment, new inventions, etc., all of which we fear not, will be appreciated by our patrons.

THE CARDIAC RELATIONS OF CHOREA. — Dr. William Osler has carefully re-examined (*Am. Jour. Med. Science*) 110 of the choreic cases treated at the Infirmary for Nervous Diseases between 1876 and 1885. In each case the patient was examined more than two years subsequent to the attack of chorea. He found 43 normal hearts, 53 with organic and 13 with functional troubles. He draws from his study the following conclusions :

1. That in a considerable proportion of cases of chorea—much larger than has hitherto been supposed — the complicating endocarditis lays the foundation of organic heart disease.

2. In a majority of the cases the cardiac affection is dependent on rheumatism, and cannot be regarded as in any way associated with it ; unless, indeed, we hold with Bouillaud, that in the disease "*chez les jeunes sujets, le cœur se comporte comme une articulation.*"

3. As the presence of an apex systolic murmur in chorea is usually an indication of the existence of mitral valvulitis, as much care should be exercised in this condition as in the acute endocarditis of rheumatism. Rest, avoidance of excitement, and care in convalescence, may do much to limit a valvulitis, and obviate, possibly, the liability to those chronic nutritional changes in the valves wherein lies, after all, the main danger.

TURPENTINE IN DIPHTHERIA.—Not a few practitioners in this country have strong faith in the beneficial action of turpentine in diphtheria. It will, therefore, be interesting to know the results in fifty-eight cases treated by it by Röse, of Hamburg (*Therap. Monats.; Med. Prog.*). He had a mortality of five per cent. His treatment was as follows :—

He gave oil of turpentine three times a day in teaspoonful doses, mixed with spirits of ether. A teaspoonful of a 2 per cent. solution of sodium salicylate was also given every two hours. Externally an ice-bag was used, and gargles of a 1 per cent. warm solution of chlorate of potassium. This treatment gave the following results :

1. Rapid lessening of the pulse-rate and of the temperature. 2. Rapid alleviation of the subjective symptoms. 3. Shortening of the duration of the illness. 4. No exacerbation of the local process after the first dose of turpentine. 5. Only once was there danger of suffocation, and tracheotomy was done.

Röse thinks that pencilling the throat, as done in private practice, is generally useless. He uses great caution in pushing the turpentine in anemic cases, and in patients with weak hearts ; and excessive cardiac action, from any cause, was carefully treated. The food given in his cases consisted of bouillon, old port wine and milk ; and ice and aërated fruit juices were given to quench thirst. The turpentine was discontinued when the patient was free from fever. In ordinary cases doses of from 3 to 5 drachms were used, and no intoxication was seen. In one case paralysis occurred, but the patient recovered under the use of chlorate of potassium.

INFANTILE MARASMUS.—The following conclusions have been arrived at by Dr. Isaac N. Love (*St. Louis Courier of Medicine*) as to the cause of infantile marasmus :—

1. Infantile marasmus is dependent primarily on torpidity and inactivity of the glandular system ; and is aggravated by unsuitable, over-abundant, or insufficient food and unsanitary surroundings. 2. It is of the first importance, in treatment, to arouse secretion and excretion, the best remedy being calomel in one-twentieth of a grain doses, with the free administration of water ; both of these agents exciting glandular action, stimulating the secretion of the digestive juices, and promoting diuresis and intestinal secretion. 3. "In the matter of diet, mother's milk is the best, and some other mother's milk the next best." 4. In extreme cases, administer soluble foods in the forms of baths, and practise gentle friction and massage, with an occasional bath in water containing a diffusible stimulant.

SPARTEINE, THE NEW HEART TONIC.—The

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following are suggested by Langgord (*Therap. Monats.*), as useful formulæ for the administration of sparteine in heart disease :—

℞.—Spartëin. sulph., ... gr. iij-vij.
Aq destil., ... ʒijss. Sol.
Sig.—Twenty drops from two to four times daily in sweetened water or wine.

℞.—Spartëin. sulph., ... gr. iij-vij.
Syr. aurant. cort., ... ʒxijss. Sol.
Sig.—A small teaspoonful in water from two to four times daily.

PHTHIRIASIS PUBIS.—We take the following from the *N. Y. Med. Jour.*: The treatment of phtheriasis pubis by the usnal blue ointment has so many inconveniences, with its disagreeable application and its after toxic effects, that I will speak of the use made of the well-known antiparasitic action of salicylic acid. The formula given is :—

Salicylic acid, ... 2 to 3 parts;
Toilet vinegar, ... 25 parts;
Alcohol (80 per cent.), . . 75 parts.

The parts are to be rubbed with a piece of flannel wet with the mixture. In most cases a single application will be enough to destroy the pediculi.

ECZEMA.—Dr. Crocker proposes (*Med. Age.*) to treat recurring eczema as follows: He applies a counter-irritant, not to the part affected, but to other parts of the body which have some connection with the nerve centres. The counter-irritant used is an ordinary mustard leaf, but when that is not sufficiently strong a blister is produced with liquor epispasticus. For the face alone the mustard leaf (or blister, as the case may be), is applied behind the ear; for the face and forearms apply it to the nape, and for the leg the counter-irritant should be applied on the hip over the large sciatic nerve. In most cases this treatment has been followed by removal of the itching, and the relief lasts from one to several nights. The redness and swelling are also relieved. This does not interfere with local treatment.

HYPNOTISM is to be investigated by a committee appointed by the French Academy of Medicine, Among those on the committee are Charcot. Brouardel and Marey. Their reports will be full of interest to the world at large, but especially so to the medical profession, opening up, as it professes to do, new avenues for the amelioration and cure of many diseases hitherto intractable and incurable.

THE ADMINISTRATION OF PHOSPHORUS.—The following is a very convenient formula for phosphorus (*Therap. Gaz.*):

℞.—Phosphori, ... gr. $\frac{1}{6}$.
Ol. amygdal, ... ʒiij.
Aq. dest., ... ℥iij.
Gummi arab., ... ʒiij. M. ft. Emuls.
Sig.—Dose, one teaspoonful.

TREATMENT OF TAPE WORM.—Bettleheim (*Centralbl. fur Klin. Med.*) recommends the following:

℞.—Ext. filicis maris æth., . . . gr. 150.
Ext. pumicæ granati, . . āā gr. 150.
Pulv. jalapa, ... gr. 45. M. et div. in pil. lxx., coat with keratin.

Take from 15 to 20 of these on the day of fasting, which is preceded by purgation, and the remainder on the following day, in two or three hours. When necessary, this treatment is followed by a purge. The pills are not dissolved until they have passed into the intestines, and so nausea, vomiting, and other discomforts and annoyances so often associated with the taking of vermifuges, are avoided.

CURE FOR DRUNKENNESS.—Another cure is reported by the *Med. World.* A half ounce of ground quassia is steeped in a pint of vinegar. A teaspoonful in a little water should be taken every time the liquor thirst is felt. It satisfies the cravings and produces a feeling of stimulation and strength.

CORONERS.—Dr. J. F. O'Keefe, of Tilbury Centre, has been appointed asociate coroner for Kent.

DR. SQUIRE reports (*Med. Rec.*) the following. "Mr. R——, fifty years of age, noticed, some eight or ten years ago, that his heart acted very slowly, and on being examined by a physician was told his pulse was but thirty-two to thirty-four per minute. He has kept close watch of it ever since. Each year it has lost one beat, until now it numbers but twenty-four pulsations per minute. His general health is tolerably good, but he has to guard against exertion and keep very quiet, or he is set to panting."

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Books and Pamphlets.

THE PRACTICE OF MEDICINE AND SURGERY APPLIED TO THE DISEASES AND ACCIDENTS INCIDENT TO WOMEN. By Wm. H. Byford, A.M., M.D., Professor of Gynecology in Rush Medical College and the Woman's Medical College; Surgeon to the Women's Hospital, of Chicago, etc.; and by Henry T. Byford, M.D., Surgeon to the Women's Hospital, of Chicago, Gynecologist to St. Luke's Hospital, etc. Fourth edition, revised, re-written and very much enlarged, with over 300 illustrations. 8vo, pp. 800. Philadelphia: P. Blackiston, Son & Co. 1887.

This standard work has been so favorably known to the profession for so many years that, important as it is, we need only draw attention to some of the new and original matter which has been added to the preceding edition. The principal additions are the chapters upon the "Anatomy and Physiology of the Female Pelvic Organs"; "Examination of the Female Pelvic Organs"; "Displacements of the Uterus"; "Affections of the Ovaries" and "Fallopian Tubes"; and the paragraphs upon "Oöphorectomy," "Tumor of the Broad Ligament," etc. Many changes have been made in other chapters, others have been re-written, and now the work stands we believe for what its authors intended it, a complete and practical work, and one which will be a safe guide to the practitioner in this portion of the field of medical science. The illustrations are good and the publishers have done their part well, as indeed they always do. The book is a very valuable addition to gynecological literature, and we heartily commend it to the student and general practitioner, and believe it will be appreciated above all by the specialist in this department.

FUNCTIONAL NERVOUS DISEASES, THEIR CAUSES AND TREATMENT, with a Supplement on the anomalies of refraction and accommodation of the eye and of the ocular muscles, by George T. Stevens, M.D., Ph. D. New York: D. Appleton & Co. Toronto: Carveth & Co., 1887.

The above is a memoir which received from l'Académie Royale de Médicine of Belgium the highest honor awarded for competition in 1881-1883. The work is essentially the same as the memoir which was so favorably judged by the Academiy, with a supplemen tas above noted. This supplement is not intended for the expert ophthalmologist, but for the general practitioner "who would like to make such examinations of ocular conditions as will enable him intelligently to advise and treat his patients affected with nervous disease." The idea of the author is that difficulties attending the function of accommodation, and irritation arising from nerves involved in the various acts of vision are commonly the causes of functional nervous disturbances. The photogravures used to illustrate cases cited are very interesting and instructive.

THE AMERICAN NEWSPAPER ANNUAL FOR 1887. Philadelphia: N. W. Ayer & Son.

A valuable book for newspaper men, containing a catalogue of American newspapers both of the United States and Territories, and of the Dominion of Canada, with information concerning circulation, etc., names of editors and publishers. The above and much more useful information as to location, area, character of soil, manufacture of each State, Territory, and County, make it a very useful guide for the judicious placing of advertisements. The book contains 1170 pages, and is a perfect cyclopædia of facts useful to newspaper men.

DR. BROWN'S COMBINED PRESCRIPTION DAY BOOK. Watford Ont. William P. McLaren.

The above will be of use to physicians who do their own dispensing, combining as it does the functions of a prescription book and an ordinary blotter. It will thus be a handy reference to all prescriptions, short notes of cases, etc., matters of no small importance to the busy practitioner. The book is well bound; pp. 497.

WIDE AWAKE FOR DECEMBER, 1887.—Holiday Number. Boston: D. Lothrap Company. Twenty cents a number. $2.40 a year.

We have just received a copy of above. It is gotten up in a very artistic way, and is specially adapted to the young. We have great pleasure in recommending it.

THE MINERAL WATERS OF VICHY AND THE DISEASES in which they are indicated, by Dr. C. E. Cormack. London: J. & A. Churchill. 1887.

Births, Marriages and Deaths.

On the 29th December, Dr. Henry T. Wright of Ottawa, to Marion, eldest daughter of James Graham, Esq.

At London, December 27th, Dr. W. H. B. Aikens, of Toronto, to Augusta, daughter of the late Dr. Hawkesworth, of Invermay.

In Plainfield, N. J., Dec. 6th, D. B. Bascome, M D., of Turk's Island, W. I.

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THE CANADA LANCET.

A MONTHLY JOURNAL OF

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Original Communications.

SUPRA-PUBIC LITHOTOMY.

BY W. BRITTON, M.D. TORONTO.

This operation is ordinarily resorted to in preference to Cheselden's or any other modification of the perineal section, when circumstances render it the only one feasible; indeed, with the exception of the German School of Surgery, the rule the world over has been to cut through the perineum if the pelvic outlet is not contracted and the calculus small and not encysted. The first recorded case was, like the majority of its successors, unpremeditated. In the year 1551, Franco failed in extracting a stone through the perineum of a child, and in desperation determined to remove it through the abdominal wall. Some of his admirers, after mature consideration, advised its adoption not only in such cases as forbade the perineal operation, but also in young subjects; indeed, Cheselden, whose name is so closely identified with lithotomy, was for years one of its most ardent advocates, and relinquished it not through want of success, but out of enthusiasm over his new modification of the lateral.

The earliest recorded case in England was in 1700, when Proby removed a bodkin in this way from a woman's bladder. In 1718, Douglas strongly claimed for it the attention of the profession, published a work on the subject; and very unostentatiously christened the operation "Lithotomia Douglasiana." From that time up to the present century its hold on the surgical world has been marked by many vicissitudes—to-day espoused by some of the foremost, and to-morrow falling into disrepute because of the objections put forth by the many. Only lately has it been received with anything like general favor, and this revolution of opinion may be referred to the reports of a number of successful cases by Amussat, Dupuytren, Scarpa, Home and others.

A table of statistics was compiled in 1850 by Humphrey, of Cambridge; he managed to collect only 104 cases; and amongst English speaking nations no further work of any magnitude in this line was accomplished until 1875. During this interval the Germans took considerable interest in the subject, aroused chiefly by a second table compiled by Prof. Günther, of Leipsic, who collected the reports of 200 cases. In the year 1874, Dr. C. W. Dulles, of Philadelphia, devoted considerable attention to the matter; he tabulated four or five hundred cases; and comparing the results with an equal number of the lateral operation, he found that "the operation is as successful as the perineal for calculi under two ounces in weight, and has better results for larger calculi." He concludes the able article from which I have quoted, in these words:—"After thirteen years of study of this method, and an analysis of over 700 operations, I have come to the conclusion that a temperate view of the subject will lead to the conviction that the supra-pubic operation deserves to rank above all other methods of lithotomy, for stones of large size, and that its applicability to any case should be carefully discussed before deciding to cut through the perineum." In 1880, Dr. Peterson, of Kuhl, gave it a fresh impetus by his published description of the method of rectal dilatation for the purpose of elevating the bladder.

Heath says that the operation has been performed so seldom, that a comparison of its results with those of the perineal would be premature; but should it not, on further trial, prove to have a heavy mortality, it is certain to take a high place in professional esteem, and to supplant all other methods for the removal of large stones. I shall now give an epitomized history of a case of my own which occurred recently.

In November, 1887, I was called to see C. W., an active robust boy of nine years. He was suffering from the ordinary symptoms of stone, which on sounding I readily found present. When about two years old, and for some years subsequently he had been troubled with incontinence of urine, together with vesical irritability, manifested only by frequent urination; these were the only symtoms until two years ago, since which time dysuria had been constant and accompanied occasionally

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by hematuria ; so it was safe to conclude that the stone was at least two years old. It did not appear to be large, and being of slow formation it was probably not phosphatic in character. I had then to deal with a hard calculus in a young patient, both of which circumstances rendered it unadvisable to perform the less serious operation of lithotrity ; and to choose between supra-pubic and perineal section was a difficult matter, until I obtained access to the pamphlet of Dr. Dulles, already referred to. In consideration of the good results shown in his table, and to avert the possibility of hemorrhage or urethral laceration, the supra-pubic method was adopted. In the operation I was assisted by Drs. W. T. Aikins and J. L. Davison. After chloroforming and sounding the patient, the bladder was thoroughly irrigated with a warm borated lotion and then injected with carbolized water ; and percussion showing that the bladder was well up in the hypogastrium, rectal dilatation was dispensed with. The ordinary incision through the abdominal walls was made and attended with only slight hemorrhage from small branches of the epigastric, which were easily secured. Instead of catching up the bladder with a tenaculum, two strong threads of silk were passed through its coats, one on each side of the proposed incision and well held up by an assistant, which materially assisted in exposing the anterior surface. The bladder incision was made as close as possible to the pubes, and only sufficiently large to admit the little finger for the purpose of exploring the interior and locating the stone which was lying loosely in the fundus. Having ascertained that it was not too large to admit of extraction through so small an opening, a straight pair of forceps was introduced, and a mulberry calculus slightly larger than a peach stone, was easily removed. After a further digital examination to preclude the possibility of leaving a second calculus, and as the incisions were made with antiseptic precautions, and the structures appeared to be in a healthy condition, it was determined to aim at primary union. Accordingly, the bladder wound was united by interrupted fine catgut sutures that did not penetrate the mucous coat and at short intervals, in order to render it watertight. The external wound was closed also after the suspensory ligatures had been withdrawn and dressed with iodoform. The metallic catheter which had been used as an aid in elevating the bladder, and a guide down upon which to cut, was now withdrawn and a flexible one substituted.

The subsequent history of the case is interesting, chiefly in the fact that nature will often surmount apparently insuperable obstacles to counteract the effects of bad nursing. Strict injunctions were given that the catheter be watched night and day lest it become impervious. For three days the case progressed satisfactorily, the patient having no pain and the temperature having risen no more than one might expect in urethral fever, when on November 28th, I was summoned to relieve the patient, who was reported to have been in pain for some hours. On my arrival I found the catheter as dry as a bone, and on removing the dressings, the wound, which hitherto had been uniting rapidly, showed signs of oozing. I cut one suture and removed the catheter, when urine not only flowed *per urethram*, but also shot up in a stream from the wound. I endeavored to pass a soft catheter through the wound for the purpose of drainage, but unsuccessfully ; evidently the vesical opening was smaller than the external one, and, lest further exploration prove disastrous, I trusted to free exit through the urethra. I ordered the wound to be frequently washed antiseptically, and dressed with carbolized ointment, re-introduced the catheter, and, instead of allowing the urine to drop into a sponge as most works direct, a small vessel was now used which the nurse was instructed to empty every hour, so that any clogging up of the catheter might be detected before damage could ensue from over-accumulation. The catheter was removed each day, washed out and re-introduced.

Whether the escape of urine occurred from the needle punctures made in introducing the suspensory ligatures or from the incision itself, I do not know ; but I feel quite confident that had the accumulation of urine been prevented, which ordinary watchfulness would have done, the patient would have been well in a week ; as it was, he went on rapidly towards recovery; only once was there slight oozing of urine from the granulating wound, which was on December 13th, being the first occasion of natural urination; up to this date the catheter having been retained. On December 21st, being twenty-six days after the operation, he was quite well.

So little has been written on this subject, and,

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of what is written so much that is incomplete and conflicting, both as to the merits of the operation and the method of performance, that it will not be out of place to add a few plain facts

1st. It is much simpler than any modification o the perineal operation ; the only structure to be avoided being the peritoneal fold, which, with careful dissection is easily done. Contrasted with this, the perineal section is "going it blind," between the artery of the bulb anteriorly, the internal pudic externally, and the rectum behind. The wounding of any of these would prove a serious complication ; and supposing they are passed in safety, I wonder how many have succumbed to a prostate incised in a faulty manner. Supposing union occur primarily in the supra-pubic method, the danger of septicemia is averted, and in any case with proper drainage precautions, the risk of urinary infiltration and diffuse inflammation does not appear to be greater than in perineal section. The operation is not attended with hemorrhage, or the danger of wounding the rectum, the deep fascia or the seminal ducts, nor is it followed by shock or perineal fistula, both of which may occur in the lateral and median operations.

2nd. It is especially suitable for boys ; for, in their case, on the one hand, the bladder is high up with plenty of room below the peritoneum for incision, and on the other hand the perineum is usually loaded with fat, and therefore the wound must be deep and difficult of precise execution. In such cases the prostate is small—its incision must be very limited in order to be safe—the finger is introduced through so small an opening, only with considerable force, and this with danger of lacerating the thin and delicate membranous urethra, which could not be otherwise than disastrous in its consequences.

3rd. The bladder is elevated by one or all of three methods—dilation of the rectum, injection of the bladder itself, or by the tip of a metallic catheter or sound. In dilating the rectum it is recommended to use a pear-shaped rubber bag, and lest tearing of its coats occur from over distension, to allow the water to enter by gravity from a graduated receptacle through a long rubber tube ; from twelve to sixteen ounces usually proving sufficient. A double channelled silver catheter answers best for irrigating the bladder – it will also serve for dilating it subsequently by closing the returning opening—and by closing both openings it will answer as a sound for pushing up the anterior wall.

4th. The external incisions should be as close to the pubic bones as possible—and that of the bladder as low down as practicable. To this end a tenaculum, which is more easily applied than the ligatures which I used in the case described, should catch up the anterior wall well down behind the symphisis—traction on which will rotate the bladder on its transverse axis, and so throw the peritoneal fold backwards out of harm's way.

5th. The smaller the bladder incision is, the better, provided it be large enough to permit of extraction without laceration.

6th. If the coats are in anything like a healthy condition it is well to close both wounds and trust to primary union—to this end catgut sutures in the bladder are the best.

7th. The retained catheter is preferably of soft rubber ; for, although its channel is smaller in proportion than that of the ordinary elastic, it can easily be removed at intervals for cleaning, and its vesical extremity being more flexible, is more likely to lie low and drain effectively, and less liable to irritate by chance pressure against the anterior wall.

8th. It is above all things needful to take proper precautions that the bladder is thoroughly and constantly drained—and if the receiving vessel is emptied every hour, no accumulation of urine sufficient in quantity to prejudice the case can occur before the stoppage of the flow is detected.

THE INFLUENCE OF CERTAIN OCULAR DEFECTS IN CAUSING HEADACHE.*

BY F. BULLER, M.D.,

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The influence of abnormal conditions in the organs of vision in causing headache has long been recognized, but it cannot even now be said that the nature of that influence in all its bearings is fully understood. The term eye strain is, indeed, applicable to a very complex condition, in which anatomical, mechanical, muscular and nervous influences variously combined each play their part.

* Read before the Canadian Medical Association, at Hamilton, September, 1887.

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Whenever there is a deviation from the normal state in any one or more of these particulars, visual disturbance of some sort is likely to result, and with it more or less functional disturbance, of vision, as well as of other parts or organs.

In the organs of vision such disturbance of function most frequently presents itself to the ophthalmologist in some form of so-called asthenopia. Many cases of this kind are also accompanied with reflex disturbances in parts more or less remote from the eyes, the most important of which, in point of frequency at least, undoubtedly is headache. Headache from this source may attain any degree of severity, from mere discomfort to the most unbearable agony. It may be constant or intermittent, but in any case it is likely, in the long run, to resist every remedial measure until the visual difficulty, whatever it may be, is discovered and suitably corrected. Some experienced ophthalmologists go so far as to contend that nearly every case of migraine or sick headache is associated with some defect in the visual apparatus; for my own part, whilst admitting that such an association is of frequent occurrence, I am inclined to think there is a large proportion of these cases not to be accounted for in this way. Others, again, claim that all sorts of nervous disorders, including chorea, epilepsy and insanity, are often due to the same cause; on this point I am not prepared to express an opinion.

There is, however, among ophthalmologists, and through their labors, also, I think, in the general profession, a settled conviction as to the importance of ocular defects in causing headache. On this subject there is, however, but little information to be gained from the ordinary text-books of medicine, though current literature contains much that is well worth careful study.

Everyone has heard of remarkable cures of headache by the correction of certain errors of refraction, and there is, perhaps, a widespread notion that ocular defects causing headache only require the adaptation of suitable glasses to remove the trouble. This is quite true of certain cases, the correction of refractory errors may accomplish all that is to be desired. Sufferers from headache during half a lifetime, have time and again been cured in a few days by wearing the glasses that have corrected a simple hyperopia. I once saw a student who had reached the third year of his university course, a martyr to headache all the time, and subject to attacks of vomiting if if he studied longer than two hours consecutively, so disheartened that he had decided to abandon his university career, when he found himself suddenly cured of all his ailments by wearing convex cylindrical lenses of 36 inches focus. Convex sphericals of the same focal distance had been used for some time previously without benefit. Here there was only a simple error of refraction, slight in degree, but giving rise to symptoms that might readily have been mistaken for some serious organic disease. Such a case can, I take it, only be explained by assuming an instability of nerve force which a trivial disturbing element was capable of putting completely out of balance. On the other hand, it is a matter of daily experience to meet with persons whose visual apparatus presents infinitely greater deviations from the normal without setting up any noticeable mischief.

As a rule, those who suffer considerably from slight ocular defects are neurotic subjects, in whom minor ailments are apt to make more show than serious ones do in those whom nature has endowed with vigorous nerve power. But there are visual abnormalities which even the most vigorous cannot bear up against without suffering, more particularly when any unusual demands are made on the organs of vision, or when from any cause the general health becomes deteriorated. In such persons the true nature of the troubles they experience is exceedingly apt to be overlooked, unless the eye symptoms happen to predominate, which by no means always occurs.

I have said the elements which may unite to produce eye strain, though simple in themselves, constitute a complex condition when so combined. Let us consider the most important ones separately, always bearing in mind that several may be combined in the same individual.

First of all come the errors of refraction—myopia, hyperopia and astigmatism. Next we have defective muscular action both of the extrinsic and intrinsic muscles of one or both eyes, in which any one or more of these may be implicated. Lastly, there may be faults in the perceptive organs—that is, of the retinæ and their nerve centres. This third division we may leave out of the question, as a consideration of this part of the subject would take us beyond the limits of a short discourse.

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It is the physiological demand for binocular vision and for distinct vision that, under certain unfavorable conditions, induces eye strain and consequent headache. We must, therefore, direct our attention chiefly to the muscular apparatus, any portion of which may be defective in power, or, what amounts to the same thing, the demands made upon it may for various reasons be greater than it can bear.

In hyperopia and in astigmatism the chief demand is for distinct vision, hence the ciliary muscle is liable to be overtaxed, and there will be accommodative asthencpia. In myopia, the muscles of convergence are placed at a disadvantage, and we are more likely to meet with so-called muscular asthenopia. Both in myopia and hyperopia, as shown by Donders, the acts of accommodation and of convergence, which are essential to binocular vision, become more or less disassociated. It is only in the emmetropic eye that they are arranged to act equally at all distances. This want of harmony between the intrinsic and extrinsic muscles is in itself a fruitful cause of eye-strain. As a manifestation of this disassociation, we often meet with the obvious muscular defect called strabismus, usually convergent in hyperopia, and and divergent in myopia. In emmetropia, the range of distinct vision, consequently both of accommodation and of convergence, is from infinity up to some near point, say a few inches distance; but in the above mentioned errors of refraction, though there is the equivalent range of distinct vision, it is displaced more or less, backwards from the normal near point in myopia, and forwards in hyperopia. Correction of these errors of refraction acts beneficially in each case by restoring the range of vision to something like its normal position, and consequently, in re-establishing the association between convergence and accommodation. Correcting glasses also act, in hyperopia, as a direct relief to the ciliary muscle by diminishing the necessity for excessive accommodative efforts, whilst in myopia suitable glasses relieve the necessity for extreme convergence. In astigmatism, the constant effort to obtain distinct vision is particularly irksome, probably because it induces an irregular action of the ciliary muscle, a structure which nature has designed to act uniformly in all its extent, and which, on account of its delicate functions, is endowed with numerous and extraordinary sensitive nerves. In astigmatism, then, we have to deal with accommodative asthenopia. But when the extrinsic muscles are at fault, the difficulties caused by otherwise uncomplicated errors of refraction cannot always be remedied by glasses that correct the refractive error. There can be no doubt that defects in the extrinsic muscles are met with much more frequently in connection with errors of refraction than in the normal eye, and it is sometimes found that a suitable correction of the refractory error will in time restore muscular equilibrium where this has been defective. Correcting glasses can often be supplemented in their action by combination with prisms in such a position as to relieve the strain of overworked muscles. Combinations of this sort may have the happiest effect in allaying the visual disabilities of those who suffer from both refractory and muscular errors. There are, however, cases in which a defective action on the part of the extrinsic muscles is the sole cause of the visual difficulty, but I am convinced that a large proportion of those cases in which a careful correction of the refractive error affords little or no relief to the symptoms of eye-strain, can be explained by the presence of some defect in the action of the extrinsic muscles, either inherent or the result of long habit—a defect which must be corrected before relief can be obtained by wearing glasses. The following case illustrates this point:

Mrs. S., aged 37, consulted me in the year 1883 on account of short sight, weak vision, and almost constant headache, troubles which dated back to girlhood, and from which she had never been able to find relief. She was wearing concave spherical glasses for distance only, of 16 inches focus. Under atropine, I found M 1/14, with myopic astigmatism about 1/60, vision $= \frac{8}{8}$ each, and apparently some weakness of the internal recti, but, as I thought, not enough to call for special attention (at that time I was not in the habit of testing the muscular functions in doubtful cases with the same care as I do now), I ordered—18 to be worn constantly if possible. Three and a half years later—that is, last April—she came to me again complaining that the eyes and head were, if possible, worse than ever. I then found the refraction. corrected under atropine: R., $-4.50 \frown -0.50$; ax. 70°; vision $\frac{8}{10}$. L., $-4.50 \frown -0.75$; ax. 100°; vision $\frac{8}{10}$. With this correc-

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tion there was a latent divergence at 6 metres distance, =pr. 6°, abduction =15°, adduction the same. Abduction increased by exercise to 18° and adduction to 25°. Though varying slightly from day to day, repeated examinations substantially confirmed these conditions. There was thus an evident loss of muscular balance in favor of the external recti. This I corrected by a partial tenotomy of the left external rectus carefully regulated to exactly correct the latent divergence. She was directed to continue using the same glasses as before. A month later she came to report the result. There was then perfect muscular balance at 6 metres, abduction 12, adduction 30. From the day of the operation the headache had entirely disappeared.

Insufficiency of the external recti with latent convergence has lately also become a well recognized condition as a cause of asthenopia and its attendant discomforts. This condition is perhaps of less frequent occurrence than the same defect in the internal straight muscles. When discovered, however, it may, if necessary, be remedied by taking from the internal recti their overplus of power, or the relative strength of the externi may be augmented by a carefully regulated advancement of the tendon.

I now come to what I believe will prove to be one of the most important muscular anomalies, for the detection of which and a precise knowledge of the proper measures for its relief we are mainly, if not entirely, indebted to Dr. Geo. T. Stevens, of New York. I allude to defective action of the superior and inferior recti. I have recently found this defect to be of more frequent occurrence than I should have anticipated, and it is of extreme importance, not only on account of the visual and other (reflex) disturbances an error of this kind is capable of inducing, but also in its influence on the action of the other ocular muscles. I now consider no test of the muscular functions to be complete unless the condition of the superior and inferior recti is carefully taken into account, because a latent vertical deviation so disturbs the balance of the other muscles that the most misleading results are likely to be obtained if a vertical deviation has been overlooked. The terms suggested by Dr. Stevens to express the various abnormal conditions of the extrinsic ocular muscles seem to me entirely satisfactory, and I now always employ them in my records. Vertical deviation or *hyperphoria* may be combined with any error of refraction, and with lateral deviation in either direction, such as the following case, which is one of compound hyperopic astigmatism, with hyperphoria and exophoria:—

Mrs. F., aged 36, a thin, worn-looking woman, has had pain in the eyes and headache for many years, always aggravated by near work. In Dec., 1883, I found under atropine—

R., + 32 s. ⌒ —80 c., ax. 135°, $\frac{2}{3}$°.

L., + 40 s. ⌒ +14 c., ax. 130°, $\frac{2}{4}$°.

and ordered these for all near work. They afforded some relief, but the headaches remained as before. She came again in April, 1887, and I found the refraction unchanged. After repeated examinations I found 1° of right hyperphoria and 2° of exophoria, abduction=9°, adduction=16°. After partial tenotomy of left lower rectus, the hyperphoria was corrected, but the lateral deviation remained unaltered. This was also corrected by partial tenotomy of right external rectus. On June 14th there was exophoria 1°, abduction 6°, adduction 23°, and freedom from headache. On June 25th there was exophoria =2° and some headache after prolonged use of the eyes. The remaining exophoria will probably require a repetition of the tenotomy. There is evidently still a considerable degree of latent excess of strength in the externi.

In another case, a gentleman 45 years of age, there was: R.H., −0.75 $\frac{2}{3}$°. L.H., =4 D ⌒ +2 D.C., ax. 110, $\frac{2}{3}$° +. With frequent headache and the head feeling so badly he was in great anxiety, fearing the head symptoms indicated organic disease of the brain. Here the correction of 1½° right hyperphoria by partial division of the left inferior rectus and the correction of the error of refraction by glasses, relieved the head completely.

The same error of muscular balance will undoubtedly cause distressing symptoms where there is no error of refraction or one so slight that it will not account for the symptoms. I have recently seen a marked instance of this kind, and will here give another in which the error of refraction was trivial, but the patient a great sufferer from headache and weak vision; he also had a worn, distressed look which one often meets with in cases of eye-strain.

C. A., aged 29, has had weak vision since his

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school-days, and suffered almost constantly from headache. In 1880 I treated him for an anterior choroiditis of the left eye, from which he made a perfect recovery, but I did not succeed in relieving the asthenopia. Last June I again had an opportunity to examine the eyes, and found, under atropine: R. +0.75 s. $\frac{1}{8}$. L. +0.75 s. ⌒ 0.75 c., 90° $\frac{1}{8}$. There was slight insufficiency of the internal recti, with exophoria 1° and left hyperphoria 1°. A correction of the latter gave immediate freedom from headache, and was soon followed by a marked improvement in his general health.

There can be no doubt that visual imperfections which call for a constant and abnormal expenditure of nerve force, such as must necessarily be the case where there is loss of equilibrium, or of the visual axes in any direction, is not only a frequent cause of morbid conditions in the eyes themselves, such as conjunctivitis, blepharitis and keratitis, perhaps, too, of deeper seated inflammatory affections of these organs, but also of headache, migraine, neuralgia and other nervous disorders. That they cause deterioration in the general health almost goes without saying.

Every subject of such visual defects as these is handicapped or over-weighted to just such an extent that he is liable to break down before the finish In the cases I have quoted I have not, for obvious reasons, gone fully into details, but enough has been said to show their bearing on a subject which seems to me to merit more attention than hitherto has been bestowed upon it, even by those who have to do exclusively with ophthalmic surgery; and, I am convinced, the facts I have endeavored to bring forward may be used as a key to unlock the hidden secret of many obscure and troublesome cases that would otherwise stand as an opprobrium to medical art, bidding defiance to all its resources.

ON THE NECESSITY FOR A MODIFICATION OF CERTAIN PHYSIOLOGICAL DOCTRINES REGARDING THE INTERRELATIONS OF NERVE AND MUSCLE,

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.*

SECTION OF THE SPLANCHNICS.

In a "demonstration of the vasomotor functions of the splanchnic nerves," the chief editor of the "Hand-book for the Physiological Laboratory" (*a*), informs his readers that these nerves contain vasomotor fibres which "are distributed to the arteries of the abdominal viscera."

We approach this "demonstration" expecting to find that when these nerves are cut the predicted results will follow in the arteries they supply being more or less "relaxed" or "dilated." What is our disappointment to find in all that follows in this chapter of the "Hand-book," the arteries are never once alluded to! Thus the very pith and point of the so-called "demonstration" is entirely ignored! What occurs is thus stated by Dr. Burdon Sanderson: "After section of both nerves the vessels of all the abdominal viscera are seen to be dilated. What "vessels" are these? Not the arteries, because Dr. B. S. continues: "*The portal system is filled with blood;* the small vessels of the mesentery and those which ramify on the surface of the intestine are beautifully injected; the vessels of the kidney are dilated, and the parenchyma is hyperemic; all of which facts indicate, not merely that by the relaxation of the abdominal blood-vessels, a large proportion of the resistance to the heart is annulled, but that *a quantity of blood is, so to speak, transferred into the portal system, and thereby as completely discharged from the systemic circulation as if a great internal hemorrhage had taken place.*" (*b.*) [Italics mine.] It needs no italics to give point and force to this remarkable admission. It is merely stating, with a little circumlocution, that the arteries are empty and the veins are full! The "beautiful injected vessels," which the learned editor so much admired, are not arteries but veins, the blood in which has become "bright red, like arterial blood," as Prof. Kuss explains of venous blood in the mesentery, because oxygenation has been effected simply by exposure to the air." (*c*)

The contraction and emptiness of the arteries, after section of the vasomotor nerves, is thus proved on the very highest authority. Where now is the justification of the assertion that after a section of this kind the arteries are dilated and hyperæmic?

Whatever obscurity there might be as to the actual results of section of the cervical sympathetic, for obvious reasons, there can be no mistake

* Read before the Physiological Section of the Ninth International Medical Congress, held in Washington, September, 1887.

(*a & b*) Amer. Ed., p. 258, p. 260.
(*c*) Lec. Phys., p. 326.

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as to the results here. Now the law of uniformity of cause and effect, demands that what is true of the relative state of the arteries and veins after section of the splanchnics, must be true also after section of the cervical sympathetic—and since the arteries are thus shown to be empty and the veins full in the former case, the same condition must be held to prevail also in the latter. It is worthy of note, in this connection, that both after section of the spinal cord, and after section of the splanchnics, blood pressure falls, and in both cases may be restored by faradization of the divided cord or nerve. It is evident from this, that the fall of blood pressure (as shown by the kymograph in the carotid) on section of the cord, is not to be regarded as an indication of arterial relaxation, as appears to have been done; because blood pressure fell also after section of the splanchnics, where we know positively that arterial dilation could not have taken place. It may be asked, how could faradization of the spinal cord or of the nerve, restore the pressure or tension in the arteries, if the heart and arterial system were already empty? Dr. Burdon Sanderson supplies the answer indirectly, in stating: "It is seen that after section of the cord the heart is flaccid and empty, and that its cavities fill and its action becomes vigorous, when the vascular contraction caused by excitation of the peripheral end [of the cut cord] forces the blood forward so as to fill the right auricle" (*a*). Now the only blood which could be "forced forward so as to fill the right auricle" is *venous* blood from the distended portal system. Thus it will be seen that all the facts fit, and as it were, dovetail into each other, in establishing that nervous paralysis and contraction of the arterial muscle go together the result being hypermeia, not of the arteries but of the veins. The explanation just quoted from the Hand-book, as to the forcing forward of the venous blood, as an effect of the faradic current, confirms the explanation made above, as to the dissipation of the venous hyperemia by the same current after section of the cervical sympathetic.

STATE OF THE ARTERIES IN DEATH.

Not only are the arteries invariably as empty as their physical structure will permit them to be, when their nerves are cut or paralyzed in the living body, but such is also their condition *in death* of the body, when nerve force is extinct. This is a fact too well known to need any special proof. It is a fact, however, which ought to be explained by those who hold that in a condition of nerve paralysis the arteries are "dilated" and hyperemic.

THE OPERATION OF PITHING.

What has just been said of the contracted and empty state of the arteries is true also after the operation of "pithing" (in which the medulla and spinal cord are destroyed); as any one can easily satisfy himself, as I have done, by actual experiment. This is inadvertently proved to be the case by Dr. Burdon Sanderson in his account of an experiment designed to prove the contrary. Two frogs are taken. One is "pithed," in the other the nervous centres are uninjured. In both the heart is carefully exposed and the single ventricle slit open, so as to show the state of the great vessels. The experiment is intended to prove that in the pithed frog the arteries are "relaxed" and full of blood. On Dr. Burdon Sanderson's showing, the results are these: In the pithed frog, "although the heart is beating with perfect regularity and unaltered frequency, it is empty, and in consequence, instead of projecting from the opening in the anterior wall of the chest, it is withdrawn upwards and backwards towards the esophagus." The heart and its appendages "are alike deprived of blood"; but on opening "the rest of the visceral cavity, "*the intestinal veins are distended.*" In these, "the whole mass of blood has come to rest, *out of reach of the influence of the heart.*" How significant is this! If the arteries were dilated, and consequently full of blood, this blood could not be said to be "out of reach of the influence of the heart." But this is not all. The Hand-book continues: "In the frog deprived o its central nervous system *only a few drops of blood escape*—the quantity, that is to say, previously contained in the heart and in the beginning of the arterial system. In the other, *bleeding is not only more abundant but continues for several minutes after the section.*" [Italics mine.]

Is it not evident that in the case of the pithed frog, the arterial system promptly emptied itself into the now "distended veins," and had "only a few drops of blood" left to drain away through the open ventricle (the frogs being both suspended), while in the case of the other frog, whose nervous

(*a*) Lec. Phys. p. 251.

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system was intact, this arterial contraction did not take place, and the arteries continued to bleed for several minutes till drained of blood.

The "Hand-book for the Physiological Laboratory," from which I have quoted so often, occupies to-day a leading place as an exponent of physiological science. The reader who studies the details of the experiment just quoted, will be surprised to find, that here again, in an experiment specially designed to prove that "all the arteries are relaxed," the condition of the arteries is completely ignored, and never once alluded to! The arteries *ought* to be "relaxed," "dilated," and even "widely dilated" here, on the theory of the text-books, but they are empty and contracted, their final act being, as in death from other causes, "to drive their contents into the veins" (*a*).

AN EXPERIMENT OF DR. BROWN-SEQUARD.

In this connection I must notice in the briefest manner, an experiment of Dr. Brown-Sequard in which the doctrine here supported is confirmed in a remarkable manner. In a dog, a section was made of a lateral half of the spinal cord just below the medulla. The result was, extreme hyperemia of the "blood-vessels," to use Brown-Sequard's term, of one posterior limb, while the "blood-vessels" of the other posterior limb displayed a state of spasm and ischemia quite as extreme. "Very often the spasms persists for days," wrote the observer, "and it may be so great that the circulation is almost entirely suspended," so that "the cutting of the skin hardly gives a drop of blood." The question at once arose, was the paucity of blood in one limb due to the excess of blood circulating in the other, or *vice versa?* Was the spasm on one side, or the dilatation on the other, the primary or direct effect, through the spinal vasomotor nerves of the half section of the cord?

In order to solve this question, Dr. Brown-Sequard made "direct experiments." Among others he ligatured the iliac artery feeding the dilated blood-vessels of the hyperemic limb, thus directing "almost the whole of the blood coming from the aorta" into the iliac artery of the limb in which the circulation was so much diminished. Notwithstanding this, the spasm was but partially overcome: "the temperature rose but little"; and "it was quite evident the small arteries near the toes did not allow the blood to pass freely." Here was complete evidence, not only that there was spasm, but also that this spasm was arterial. Although the vasomotor mechanism of the spinal cord is as yet only very imperfectly understood, there seems no reason to doubt that this active contraction of the arterial muscle was here, as elsewhere, due to nervous paralysis, the result of the half section of the spinal cord.

MORE ABOUT THE ARTERIAL MUSCLES.

It will be obvious that the relative state of the arteries and veins in the foregoing experiments is incompatible with what M. Charcot calls "the paralytic dilatation" of the arteries, as a result of vasomotor nerve section, and could not occur, if after this section the arteries remained "widely dilated," and "permanently larger," as asserted by other authorities already quoted. If this were the condition of the arteries, it is evident that they would be wholly incapable of contracting upon their contained blood, so as to force it forwards through the capillaries and into the veins;—an act depending entirely upon arterial contraction, because the force of the heart has already expended itself, and the capillaries have no muscular walls; while, that the veins are merely passive, is shown by the fact they have no vasomotor nerves, and their calibre is not, as in the case of the arteries, regulated by nerve influence (*b*). Thus all the facts show that the arteries, so far from being "dilated" and "paralyzed," are undergoing active contraction. Some recent authorities appear to suggest the modified idea that the dilation of the arteries, instead of being "permanent," as alleged by some authorities, is a temporary effect—"an opening of the flood-gates," so to speak, in order to facilitate the transmission of blood to the veins. Thus Dr. M. Foster writes: "The section of the splanchnic nerves causes the mesenteric and other abdominal arteries to dilate, and these being very numerous, a large amount of the peripheral resistance is taken away and the blood pressure falls accordingly; a large increase of flow into the portal veins takes place and the supply of blood to the face, arms, and legs, is proportionately diminished." (*c*) It would appear that here, as elsewhere, "the fall of blood pressure" is reparded as evidence of "lessened peripheral resistance," and a

(*a*) Kuss Phys., p. 181.

(*b*) Foster's Phys, pp. 265-268.

(*c*) Phys., 3rd Amer Ed., pp. 240 and 220.

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proof that the arteries are "dilated," the fallacy of which will presently appear.

We read again: "When the nervous system is destroyed, dilation of the splanchnic vascular area causes all the blood to remain stagnant in the portal vessels; and probably these as well as other veins are rendered unusually lax, so that the blood is largely retained in the venous system, and very little reaches the heart." (*a*) And further: "When in the frog, the brain and spinal system are destroyed, very little blood comes back to the heart, as compared with the normal supply, and the heart in consequence appears almost bloodless and beats feebly . . . the veins become abnormally distended and a large quantity of blood becomes lodged and hidden as it were in them." (*b*) Here is the secret, both of the emptying of the arteries and of the fall of blood pressure. The blood comes to rest in the more capacious venous system (*c*) "out of reach of the influence of the heart." Now seeing that the rapidity of the arterial circulation is such that only one-seventh of a second is required for blood to pass from the heart to the radial pulse, how long, think you, would be required to empty the arterial system of the pithed frog, seeing that at first little blood, and very soon no blood, finds its way back through the heart, into the arterial trunks? Why, the the time required would be counted by seconds rather than by minutes. There would be no time and no necessity for the terminal arteries to dilate; the emptying of the arteries and the fall of blood pressure being amply accounted for by the fact that *blood is passing out of the arterial system faster than it is being returned to it.* A precisely similar condition to that just described as resulting from nerve destruction, occurs also in the fatal stage of asphyxia. Here, too, the arteries are "contracted" and empty, and the large veins are so distended that "if cut into they spirt like arteries."(*d*) And here also, Dr. M. Foster tells us there is a fall of blood pressure in the midst of general arterial contraction He says: "On account of the increasing slowness and feebleness of the heart, the blood pressure, in spite of the continued arterial contraction, begins to fall; since less and less blood is pumped into the arterial system." (*e*) It will be seen that the parallel between the two cases is complete, and that the plain facts as given by the highest authorities, do away completely with the assumption that, here, the fall of blood pressure is to be regarded as a proof of arterial relaxation. Even in the slower forms of death, when the process of emptying the arteries, is more gradual, there is still no evidence of, and no necessity for, a dilation of the terminal arteries to give exit to the blood; for, granting that contraction of the terminal arteries would tend to hinder the outflow of blood, this effect would be counteracted by stronger contraction of the larger arterial trunks above, forcing the blood through and out of the numberless terminal branches ending in the capillaries.

The facts thus far presented refer only to the great vasomotor areas of the cervical sympathetic and splanchnics. It seems unnecessary to attempt to discuss the lesser and local vascular mechanisms, about which little is known, and that little comes to us under the ægis of an erroneous theory. The greater always includes the less. What happens when the life of the chief nervous centres is killed either by sudden and intended destruction, or in death from ordinary causes, happens also in a more limited area when local or subordinate centres are killed or paralyzed. Since in the former case the arteries are found contracted and empty, the same rule must be held to hold good in the case of the individual nerve and artery.

THE STIMULATION (?) OF ASPHYXIA.

Is it not a strange position to put forward in the name of medical science, that an animal dying of asphyxia is actually undergoing a high degree of nervous excitation? Yet such is actually the teaching of the text-books in physiology to-day! Dr. Burdon Sanderson, treating of aspyhxia, says: "One of the effects of diminishing the proportion of oxygen in the blood is to excite the vasomotor centre, and thus to determine general contraction of the small arteries. The immediate consequences of this contraction is to fill the venous system." As the process advances "the heart's contractions become more and more ineffectual till they finally cease, leaving the arteries empty and the veins distended."(*f*) There is no mention here of arterial relaxation or dilation, to facilitate the outflow of

(*a*) Phys., 3rd Amer Ed., p. 367.
(*b*) Ib., pp. 240 and 220. (*c*) Ib., p. 154.
(*d*) Dr. Burdon Sanderson, Hand-book, etc., p. 332.
(*e*) Phys., p. 445. (*f*) Hand-book, etc., p. 333.

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blood. On the contrary "the immediate consequences" of "a general contraction of the small arteries" is "to fill the venous system," and in a few minutes "the arteries are empty and the veins dilated," the animal being dead. This is precisely the condition which we have seen in a former page, to be the direct result of destruction of the nervous centres. It is a process which invariably prevails in the dying, and is complete in death. Thus according to Paul Bert quoted by Prof. Kuss, "death is always owing to asphyxia" (*a*).

Why has it been assumed by physiologists that in this rapid sinking into death, the nervous centres are undergoing an unusual excitation? Because as we have just seen, there is "a general contraction of the small arteries," and other spasms and contractions of the respiratory muscles fixing the chest and arresting respiration; and in accordance with the theory of the day, these spasms and contractions of the muscles, depend on active discharges of nerve force, stimulating the muscles to contract. How is this assumed extraordinary activity of the nerve centres to be accounted for in an animal actually dying? There is a "physiological law" which declares that the activity of an organ is directly dependent upon its receiving a due supply of arterialized blood (*b*) and Dr. W. B. Carpenter has said of venous blood, that "it exerts a depressing influence upon the nervous centres," from which they are at length "completely paralyzed." (*c*) One would have imagined that bad blood, deficient in oxygen and loaded with carbonic acid, would have been the very last thing which a physiologist would have chosen as a pabulum from which to generate an excess of nerve force! and doubtless the choice was embarrassing enough. But necessity compels. The exigency of the theory is inexorable. Muscular contraction without nervous stimulation is deemed impossible, and there being nothing else to fall back upon, it has been assumed that impure, non-arterialized blood plays the part of a stimulant to the nervous centres. Accordingly we find a recent and popular writer—Dr. J. Milner Fothergill—in his "Antagonism of Therapeutic Agents," declaring that "the more venous the blood the greater the activity of the respiratory centre. The effect of venous blood is to augment the natural explosive decomposition of the nerve cells. . . . The effect of defective arterialization causes more rapid as well as deeper breathing; more perfect and extensive respiration is set up until properly oxygenated blood is procured." This author would almost lead one to believe that a kindness was done to the rabbit in having its vagi cut. He says, "When the vagi are cut, the respiration is modified; it becomes deeper and more prolonged, fuller and more complete." (*d*) But unfortunately this view of an apparently improved respiration is wholly delusive; for, as Dr. Burdon Sanderson tells us, "notwithstanding the vigor of the respiratory movements, the blood becomes more or less venous,"—the animal is dying, and does die, "commonly before the end of the first day" (*e*).

Let it be kept in view that the theory of the day explicitly teaches that "the muscles receive from the nervous system a preternatural stimulus to action" (*f*) and that spasm and convulsion "are dependent upon excessive activity of the spinal centres:" (*g*) and we shall see presently to what apparent absurdity this doctrine has led. In one of Kussmaul and Tenner's experiments, the carotid arteries are ligatured with the effect of inducing "immediate loss of consciousness and general and violent convulsions," which are promptly recovered from, and nervous control over the muscles restored, as soon as the ligatures are united and blood is admitted to the brain. Dr. M. Foster's view of this experiment is, that here "the nervous centres being no longer furnished with fresh blood, become rapidly asphyxiated through lack of oxygen." And yet strangely enough he holds that in this almost fatal condition of "rapid asphyxiation," the nervous centres are undergoing stimulation! for he adds: "similar anemic" convulsions are seen after sudden and large loss of blood from the body at large; the medulla being stimulated by the lack of arterial blood." (*h*) Surely such a view as this may be gravely challenged, even when put forward on high physiological authority! Dr. M. Foster remarks in another page, in his chapter on "Death," that "blood is not only useless but injurious unless it be duly oxygenated" (*i*). And again he says

(*a*) Phys., p. 330.
(*b*) Dr. C. B. Radcliffe. (*c*) Hum. Phys., p. 537.
(*d*) P. 88. (*e*) Hand-book, p. 317.
(*f*) Dr. Pereira. Vol. 2, p. 541.
(*g*) Dr. W. B. Carpenter, Ib., p. 84 i.
(*h*) Phys., p. 441. (*i*) P. 833.

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of venous blood that if it "continues to be driven through a muscle, the irritability of the muscle is lost even more rapidly than in the entire absence of blood. It would seem that venous blood is more injurious than none at all"(a). Why should nerve function be augmented by what is useless and injurious, not only to muscle, but to every other tissue in the body?

(*To be Continued*).

Correspondence.

OUR NEW YORK LETTER.

(*From Our Own Correspondent.*)

WORK AT THE POLYCLINIC—DR. R. C. M. PAGE, ON DISEASES OF THE CHEST—TREATMENT OF COMMON SKIN DISEASES.

Treatment and diagnosis may be said to be the two great things in medical practice, and these are well taught in Dr. R. C. M. Page's clinic, at the Polyclinic, who always shows many interesting chest cases. He relies on the rales for the diagnosis of bronchitis, and states, that although in some cases there may be change in the fremitus, this is due to the tumefaction of the bronchi and consequent interruption of the transmission of the voice sounds. An explanation new to me, of why there should be in the normal chest a difference in the intensity of the voice sounds, greatest on the right side, was that the right bronchus being the larger, the voice sounds are more readily transmitted. This is a point which may have important practical bearing on the recognition of early phthisis, which, of course, usually affects the left apex. Speaking of bronchitis, reminds me of several bad cases of chronic bronchitis in which the cough was troublesome, being almost wholly and immediately relieved by ℥ss to ℥j of *syrup* of ipecac. Another very favorable prescription here for old coughs and one which does great good, is the so-called Stokes' Expectorant. Its composition is as follows:

R.	Ammon Carb., ...	grs. xvj.
	Ext. Senegæ. Fld.	
	" " Scillæ, ...	āā ℥ss.
	Tincturæ Opii Camph. . .	℥ij.
	Syr. tolu, ...	ad ℥ij.
Sig.	℥j. p. r. n.	

(a) Phys. p. 126.

Judging from the every day out-patients, irregularity of the heart's beat appears to be more or less endemic. The causes as taught here are about as follows:

1. *Centric Causes*—

Chorea, epilepsy, hysteria, cerebral and spinal irritation.

2. *Execentric Causes*—

All forms of gastro intestinal irritation; certain articles of diet, tobacco, alcohol, opium, coffee, etc., genito-urinary disturbances.

3. *Mechanical Causes*—

Tight-lacing, displacements of heart from any cause, emphysema.

4. *Blood Changes*—

Bright's disease, gout and rheumatism.

5. *Fatty Degeneration.*

It is contended that the younger the patient is when suffering from acute articular rheumatism the more prone is he to suffer from acute endocarditis, whilst those who are subject to acute articalar rheumatism late in life, rarely have the complicatory endocardial trouble.

For irregularity of the heart's-beat such as I speak of, little else is done than to regulate the diet and use some local anodyne, as emplastrum belladonnæ.

In the diagnosis of heart complications, great stress is lain upon the association of cardiac dropsy and tricuspid murmurs.

Skin diseases are always plentiful in New York. Eczema is treated here by the soft-soap application, and some form of simple ointment, often the oxide of zinc. In tineæ of all kinds strong solutions of chrysophanic acid are employed, and a common practice is to coat the patch, when nearly well, with a solution of gutta percha and chloroform, which is claimed to lessen the tendency to irritation and prevents a chronic eczematous patch from occupying the seat of the tineæ. Syphilitic ozæna is treated here by simply douching with warm water, and appears to do as well and better under such simple applications than when more irritating ones are used.

DRUGS.

Editor Canada Lancet.

Not long since, an agent of a well-known drug firm, which claims to deal exclusively with physicians, called on me. As his drugs were considered

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cheaper than what I was getting from the wholesale establishment with which I had for many years been dealing, I gave him a fine order, for orders over a specified amount were sent at expense of the firm. I was pleased with the goods and their apparent cheapness, but on inquiry of my village druggist, I find that he buys far more cheaply than I ; he pays 98c. per lb. for fl. ext. cascara sagrada, while I pay this drug firm which deals with physicians only, $1.35 for the same. While I pay $2.90 for 1,000 of Bland's pills, my village druggist pays $1.25 per lb.. ordered as the fl. ext. cas. sag. is from a Montreal firm. The only plan for us to adopt in the matter of such business, is to keep a constant watch on our druggists, who, unless one finds out by mere accident the price of drugs, will in every case be the loser. Yours,

December 23, 1887. SYNTAX.

Reports of Societies.

BRANT CO. MEDICAL ASSOCIATION.

BRANTFORD, DEC. 7TH, 1887.

The President, Dr. Thompson in the chair.

After routine business Dr. Burt gave some points in the history of a case of carcinoma of the breast. The patient was of delicate constitution, aged 67 years, giving a cancerous family history, her mother and sister having suffered from the disease.

He removed the breast, assisted by Drs. Philip and Sutherland. Several axillary glands, some of them very large, were also removed. A few cervical glands were enlarged, the enlargement being probably due to irritation, as they had decreased somewhat in size since the operation. The sponges, instruments, etc., used in the operation, were soaked in a carbolic acid solution, and the wound had healed by first intention.

Several of the members present discussed the removal of cancers, touching on the means to be employed; indications for and against removals ; repeated removals, and the question of prolongation or shortening of life by such operation. With regard to the latter point, the feeling of the members was that life was made much more pleasant, and was prolonged by operation in most cases. Dr. Griffin spoke of a case in which repeated operations had been performed, the patient getting a new lease of life with each operation. Dr. Philip assisted at the removal of a breast, which was shown to be cancerous by the microscope, in which the disease had failed to return after a period of seven years. Dr. A. J. Henwood and Dr. Secord were appointed to provide notes for the next meeting, which should form a ground work for discussion.

Selected Articles.

RHEUMATISM.

BY JULIUS POLLOCK, M.D., F.R.C.P., LOND.

Let me now pass to the subject of my lecture. I have certain drawbacks to contend against to-day, which I do not allude to by way of complaint, but that you may know I have not overlooked them. In the first place, there is little or nothing new to tell you about rheumatism. No fresh light has been shed upon its pathology or treatment during the last few years, and I fear lest what I have to say to you may be "as tedious as a twice-told tale." Then again, I am badly off in the matter of illustration. My subject is one that does not carry specimens or diagrams. Nor are we able at will to command the presence of a certain number of cases of rheumatic fever in the wards. At the present time there is but one, and he is convalescent. Such are my difficulties, and I am sure you will bear kindly with me. But to proceed. There are two forms of rheumatism, the articular and the muscular ; and although they both are known under the common term "rheumatism," they are really, I believe, two separate and distinct disorders, with but little in common except their name. Articular rheumatism, as its name implies, is essentially an affection of the joints, very frequently associated with inflammation of the pericardium, endocardium, and other serous membranes, the structure of which so closely resembles the synovial. There is usually fever and marked constitutional disturbance. The disease, when uninfluenced by remedies, pursues a tolerably definite course, and has a strong tendency to wear itself out in time—say "six weeks," according to the first Dr. Warren. Its main features are those of an acute febrile attack, with local lesions. Muscular rheumatism, on the other hand, is a much more indefinite complaint, affecting the muscles, aponeuroses, and other fibrous structures, rarely accompanied by fever, never implicating the heart, and of very uncertain duration. Both these forms of rheumatism are full of interest, and will repay careful study ; but either is a large subject, and it would be impossible to do justice to the two diseases in one lecture, so I propose, if

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you will allow me, to confine my attention this afternoon entirely to the articular form, which from its greater pathological importance may well claim precedence. This disorder occurs in three well-marked forms—the acute, the subacute, and the chronic. The first two are often spoken of as "rheumatic fever," and I shall not scruple to avail myself of the term to avoid tautology. Perhaps the subacute form, in wnich the temperature ranges from 99° to 102° F., is that most commonly seen, especially in hospital practice. It differs from the more acute variety simply in degree; all the symptoms are less severe, a fewer number of joints are implicated, and perhaps there is less chance of cardiac mischief. But it is quite as tedious as the acute form, and relapses are not uncommon. In chronic articular rheumatism there is generally no pyrexia, and I believe it is not unfrequently confounded with other kinds of joint disease. It is recognized without difficulty by the number of joints that are affected at the same time, and by the wonderful influence that salicylate of soda exercises over it. I call to mind one case of this chronic form, which came under my notice in the very early days of that salicylate of soda, and in which for nearly a month I tried every remedy for rheumatism that I could think of; at last I used the salicylate of soda and cured my patient in two days.

I propose to pass lightly over the ordinary phenomena of an attack of rheumatic fever, which are probably as familiar to most of you as they are to me; the symptoms of having "taken cold," the more or less pyrexia, the profuse and acrid sweat, the swollen, painful, and tender joints, the occasional metastasis, and the not infrequent implication of the heart, which latter complication, if it be a complication, and not, as some German authorities have held, the very essence of the disorder, are the more likely to occur in inverse ratio to the age of the patient. But there is a remarkable condition that sometimes arises during the course of an attack of articular rheumatism, to which I desire especially to call your attention. I allude to what is known by the name of "hyperpyrexia." Now this state of high fever is not unknown in other diseases; it occasionally accompanies typhoid and scaret fever; it is the very essence of *coup-de-soleil* or sunstroke, and is met with in various diseases of the nervous system; "but it is in connection with acute rheumatism that it has attracted most attention and is most frequently encountered. Curiously enough, it is not only the more severe attacks of the disease that drift into hyperpyrexia; comparatively mild and subacute cases, which appear to be doing well, will now and then take this remarkable course. The symptoms of hyperpyrexia are very characteristic and well marked. The temperature which in ordinary cases of rheumatic fever ranges from 100° to 103°F., or thereabouts, without any apparent reason begins to rise, and may ultimately attain the height of 110° or even more; at the same time the joint affection subsides, pain is no longer complained of, and the patient often expresses himself as better just as the most serious symptoms are coming on. In most ceases, but not invariably, the profuse sweating cases; the skin becomes dry, harsh, and intensely hot to the touch; very frequently a crop of sudamina breaks out upon the neck, chest, and abdomen (which latter symptom I have learned to look upon as a very unfavorable sign); the tongue becomes dry and brown; there is great thirst, with complete loss of appetite; the breathing is rapid, the pulse very quick and generally weak; the patient is tremulous and restless, with a suffused and 'ferrety' appearance about the eyes, delirious at night, but often fairly sensible in the daytime. The delirium is generally of a low, muttering kind, not unlike that of delirium tremens, though occasionally there is some excitement. Unless the disease takes a favorable turn, or relief can speedily be given, death ensues in a day or two, apparently from mere hyperpyrexia."

The occurrence of hyperpyrexia would appear to depend upon the nervous systsm being attacked by the rheumatic poison; at least this was the view that I took of it ten years ago, and which has since been abundantly confirmed. Dr. Maclagan says: "Admitting the existence of a thermic centre, whose function it is to control heat formation and prevent undue rise of temperature, we have no difficulty in certain maladies and injuries in attributing the increased body heat to interference with the function. The temperature rises because the reins are slackened. The sequence of events seems to admit of no other explanation. Carrying out this line of argument, we cannot fail to see, not only that the rise of temperature thus induced must be directly as the extent to which heat inhibition is impaired, but that paralysis of the thermic centre, by abolishing inhibition and leaving heat production in uncontrolled possession of the field, must lead to hyperpyrexia. And the more we consider the pathogenesis of febrile heat, the more apparent does it become that impairment of inhibition is a much more likely cause of hyperpyrexia than is direct stimulation of heat production. Heat inhibition remaining unimpaired, tissue metabolism could scarcely cause those very high temperatures which characterize some cases of hyperpyrexia. Heat inhibition being paralysed, there is no difficulty in seeing that the temperature cannot fail to rise, and to go on rising, so long as tissue metabolism and heat production continue. All cases of hyperpyrexia we therefore regard as being probably of neurotic origin—as due to some cause which exercises a paralysing influence on the thermic centre. Pyrexia may result either from

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increased production or defective inhibition, but marked hyperpyrexia is probably due only to defective inhibition. In the cases hitherto instanced there has been a direct lesion of the nervous centres to explain the paralysis of the thermic centre and the consequent rise of temperature. Other cases there are, however, in which the evidence of paralysis of that centre is equally well marked, in which hyperpyrexia is pronounced, but in which the sequence of events by which it is brought about is not so apparent."

Now what is the etiology—what are the causes of rheumatic fever? These may, very properly I think, be divided into two—"predisposing" and "exciting." This part of my subject has given rise to much speculation and conjecture, and various theories as to the pathology of acute rheumatism have been broached. Is there a special poison, and if so is it introduced from without, as in the case of small-pox, typhoid fever, or ague? or is it manufactured within the body, as in gout or uræmia? Dr. Maclagan has advocated the view that the poison of rheumatic fever is malarious in origin, and although I cannot agree with this, it was a very "happy thought," for it led him to try salicin in the treatment of the disease, and was the means ultimately of introducing the use of salicylate of soda, the value of which is now universally acknowledged. By some authorities the "germ" theory has been entertained, and Professor Pel, of Amsterdam, thinks that "it only wants the discovery of the specific micro-organic cause of the disease in the inflamed serous membranes to render the present presumption of its specific origin a certainty." But I do not "cotton" (to use a homely phrase) to the theory that the poison of acute rheumatism is introduced from without. All evidence appears to me to point to the conclusion that it is manufactured *within* the body. This has been clearly proved to be the case in gout by Sir Alfred Garrod; and Dr. Lauder Brunton has called attention to certain remarkable poisons that are formed during the peptonising of proteids within the living body, which suggests the possibility, to say the least of it, of the *materies morbi* of rheumatic fever being formed during the process of digestion or metabolism. Whether it may be lactic acid, an old idea recently revived by Dr. Fagge, or any other kind of acid, I cannot say. We know that a profuse and acrid sweat accompanies the disorder, and looks like an effort of nature to eliminate the poison; but we also know that no amount of alkalies will neutralise the mischief. Unsatisfactory as it may be, we must, I think, admit that the particular substance, the presence of which in the blood predisposes to an attack of acute rheumatism has yet to be discovered.

The liability to rheumatic fever is not the same at all ages. It is amongst the young that the disease is most prevalent, though mere infants do not seem to suffer. Perhaps the most common time of life for an attack is between the ages of ten and thirty, though it may occur in younger and older persons. It is very unusual to meet with a first attack of articular rheumatism after fifty years of age, and even those who have had the disorder ultimately outlive their liability to be attacked by it. Youth, then, must be reckoned as among the predisposing causes of acute rheumatism. A previous attack has been also supposed to increase the liability to the disorder, but about this there is some doubt. The very fact that in course of time the tendency to the complaint is lost would seem to contradict it. Some ten years ago I was the only person who dared to disbelieve the dictum that former attacks predisposed to the disease; but I find now that the late Dr. Fagge, in his work on Medicine, takes the same view. Loss of health or debility in any form no doubt increases the liability to acute rheumatism. It also seems to be inherited, and in some persons there is such a strong tendency to the disorder that the slightest exposure to wet and cold, or to cold only, will bring on an attack, and occasionally no exposure at all can be traced. Other persons are much less liable to rheumatism, and only the most disastrous circumstances will produce the disorder. A large number of the community escape the disease altogether, no matter to what amount of wet and cold they may be exposed. "The most important exciting cause, perhaps the only one worth considering, is exposure to cold, and especially to cold and wet. Sleeping in a damp bed with insufficient clothing, remaining in wet clothes, sitting in a draught of cold air when heated—in fact, getting a 'chill' in any way, will often induce acute rheumatism in those that are disposed to it. Possibly it is the check thus given to the eliminating functions of the skin that determines an attack of the disease. It may be well to mention here that it is wet *and* cold that are so injurious; and if anyone find himself in a damp bed, he may minimise the mischief, perhaps save himself from any harm, by heaping on plenty of clothes, or by getting rid of the sheets and sleeping between the blankets only." In the same way, if we happen to get wet through from any cause, we should keep ourselves warm by sharp exercise until we can get a change of clothing, which ought to be effected at the earliest possible moment.

It is not often that we have the chance of making a post-mortem examination on a case of rheumatic fever during the height of the joint inflammation, but occasionaly a case proves fatal from cardiac complications or hyperpyrexia. We then find that the affected joints are more or less vascular, especially about the synovial fringes, and coated with a sticky, altered synovia. Sometimes there is effusion, but more commonly not, because

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the joint mischief is apt rapidly to subside upon the occurrence of any fatal complications. It is said by Sir Alfred Garrod that no ulceration of the cartilages takes place in true articular rheumatism, even after repeated attacks of the disease; and very rarely, if ever, is pus found in the joints. When a case has proved fatal in consequence of cardiac disease, the post-mortem appearance will be in accordance with the mischief that has arisen during life. When death occurs in consequence of hyperpyrexia, we shall probably find evidence of pericarditis in about half the number of cases. Cardiac complication is not an essence of the high temperature, but only an occasional accompaniment. The post-mortem appearances in hyperpyrexia will generally include a vascular condition of the brain and meninges, a dark and congested state of the lungs; the liver and spleen are friable and easily broken down, and the kidneys usually congested. The blood is tarry and fluid, but the muscles are remarkable for their bright-red color. These changes, it will be noted, are simply the result of the high fever. The odour of such cases, even when recently examined, is most offensive.

The diagnosis of acute rheumatism is generally so simple and easy that I do not halt here to make any remarks on the subject. The prognosis is eminently favorable as far as the mere issue of the affection of the joints is concerned; but it must be guarded (1) in reference to possible cardiac mischief, and (2) the chance of hyperpyrexia, which latter, however, is but a remote contingency. Heart disease is more liable to occur in children; hyperpyrexia in adults. In the chronic forms of true articular rheumatism the prognosis is very favorable. I now come to the last and most important part of my subject—the treatment of rheumatic fever. A few years ago this was most unsatisfactory. I have seen alkalies, quinine, blistering, and other reputed remedies tried in a large number of cases, alone or in combination, but without being at all impressed by their value; and well might Sir William Jenner, when President of the Clinical Society, express the doubt and uncertainty with which he used to approach the treatment of articular rheumatism under the old *régime*. But some ten or twelve years ago a new and improved method of dealing with the disorder came into operation; and it is only due to Dr. Maclagan that he should have the credit of having been the first to use salicin as a remedy, which ultimately led to the introduction of salicylate of soda, one of its derivatives. I cannot say that I have had much success with salicin, though I have tried it in a number of cases, but he must be blind indeed who cannot perceive the great value of the soda salt. There may be some doubt as to whether its use shortens the duration of rheumatic fever, but beyond question it robs the disease of some of its most painful symptoms. In a few days, sometimes hours, the temperature is brought down, the inflammation and pain in the joints subside, and the patient is in most cases practically convalescent. It is not claimed for salicylate of soda that it will prevent the occurrence of heart complications, or even hyperpyrexia, but it lessens the chance of either mischief by rapidly reducing the fever. It must also be borne in mind that the drug is not an absolute specific. Where shall we find one? It fails to relieve or cannot be tolerated every now and then. But this is no more than what happens with quinine in ague, or iodide of potassium in syphilis Salicylate of soda sometimes produces sickness, deafness, tinnitus aurium, and a peculiar kind of cerebral disturbance; but these disagreeable effects quickly disappear on a discontinuance of the drug, and seldom return upon its resumption after a short interval. The salicylate has been charged with producing serious cardiac depression, and even causing sudden death; but the evidence on these points is not very clear, and personally I have never witnessed any such effects. In treating a case of articular rheumatism, the salicylate of soda may be given in doses of ten, twenty, or even thirty grains every two, three, or four hours, according to the severity of the symptoms and the effect produced. Where there is evidence of great acidity, some alkali (five to fifteen grains of the bicarbonate of potash) may be usefully combined with each dose of the salicylate, which is best given in some aromatic water to conceal its somewhat acrid taste. It is important to keep up the action of the drug for some days after the disappearance of the fever, as the premature disuse of it is apt to lead to a return of all the symptoms—a so-called relapse. Towards the close of a case of rheumatic fever, the joints are not unfrequently left rather swollen and painful; it is then that iodide of potassium (internally), and iodine paint (externally) are so useful. When quite convalescent, the patient should have tonics, and especially steel and quinine; and if rheumatic pains linger, the salicylate of quinine, in five-grain doses, three times a day, is often of much service. Other salts of salicylic acid will probably be found useful in the treatment of rheumatism; and lately a new preparation, "salol," has been introduced. It is a salicylate of phenol and has been used a good deal in America, with, I believe, satisfactory results. But it may be asked, What is to be done in those cases of articular rheumatism in which the salicylates are not successful? Well, it is unfortunate when this happens, but we may fall back upon large doses of salicin, upon alkalies, or upon the excellent alkaline quinine prescription of Sir Alfred Garrod. Quinine and bicarbonate of potash are rubbed up together with a little mucilage and some aromatic tincture, in such proportions that each ounce and a half of the mixture contains

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five grains of quinine (in the form of carbonate) and thirty grains of potash. This dose may be given every four hours for as long as may seem desirable.

Of course, all cases of rheumatic fever must be kept in bed, and properly dieted. The most suitable nourishment in the earlier stages is the usual beef-tea and milk "fever" diet, but to this may soon be added some farinaceous food, eggs, and afterwards fish. Rheumatic fever is a disease of debility, and it is very desirable to keep up the strength of the patient; but in some cases the too early resumption of meat has seemed to be followed by a return of the rheumatism. Further information on this point would be of value Stimulants are not absolutely necessary, nor often needed, in cases of articular rheumatism; but they may be required at times, and should be administered in accordance with the condition of the patient. The bowels should receive attention, but no active purging is required, especially as the movements necessitated by any action of the bowels are attended with considerable pain in severe cases. On the other hand, opium or morphia, which may well he used hypodermically, is often of great service, alleviating the pain in the joints and allowing the patient to get some sleep. When cardiac mischief arises in a case of acute rheumatism, it should be treated in accordance with the plan adopted in such cases, the consideration of which is outside my subject. I must, however, say something about the treatment of hyperpyrexia, a matter of much interest and importance. It is unfortunate that in this severe condition, where most we want its aid, the salicylate of soda, though it was originally introduced as an antipyretic, should entirely fail. Nor can I say much that is favorable of any other of the reputed febrifuges, such as quinine, antipyrin, etc. In truth, we are driven, in the treatment of hyperpyrexia, to the application of external cold, and although some years ago I expressed a very doubtful opinion as to the efficacy of this method, a further knowledge of the subject has led to a considerable modification of my original views. There is now, I think, no question that the careful and judicious use of the cold bath or cold pack holds out the best chance of saving life in these truly formidable cases. The most important precaution would seem to be that the application of cold should be gradually and cautiously applied so as to avoid shock. This may be accomplished by placing the patient at first in a bath the temperature of which is not much below 80°F., and gradually reducing the temperature until the desired effect is produced. This bath may have to be repeated more than once perhaps, and the use at the same time of injections of ice-cold water into the rectum may be of service. Where a bath is not available, or thought to be undesirable for any reason, the cold pack may be tried. In cases where ice is not used, the patient's body and limbs are wrapped closely in a single sheet, which has been previously wrung out of cold water (temperature 50° to 60°). A blanket is then thrown loosely round him, and he is allowed to remain undisturbed for about half an hour, when the same process is gone through again, and repeated until the temperature is sufficiently reduced. When the ice pack is employed, a hip bath, or other suitable receptacle, containing a few gallons of water, in which some large pieces of ice are floating, is kept by the patient's bedside, and his body and each limb are separately wrapped in pieces of old sheeting which have been wrung out of the iced water, each piece being renewed as often as it begins to feel warm to the hand. No other covering of any kind is put over the patient. In this way the temperature may be very rapidly reduced, and it is necessary to be careful that it is not brought too low. It should not be allowed to fall below 99°F. Amongst many others, two cases have recently been reported, which tend strongly to show the value of external cold in the treatment of hyperpyrexia. One is by the late Dr. Carrington, at a meeting of the Clinical Society on February 25th last, and the other by Dr. Frederick Taylor, in the *Lancet* of March 12th, 1887.—*Lancet.*

THE DOCTOR'S WIFE.

"It is useless," says the Boston *Medical and Surgical Journal*, "to suppose for an instant that any description of the doctor's wife can do justice to her, for doctors' wives differ as stars from each other in magnitude, or, a comparison more to the point, quite as widely as their husbands. It is even doubtful if a composite photograph could so blend their many virtues and individualities as to produce a face in which each community could find their own doctor's wife. But yet, as a class, the wives of physicians possess certain common traits, as well as common graces, which are known and appreciated not only by their husbands, but by all those who possess an extended acquaintance with doctors and other families, though these characteristics are modified by the peculiarities of the woman, and the character of the practice to which she is wedded. The wife of a doctor in general practice differs very decidedly from the wife of a specialist. The business of the latter is commonly confined to certain hours; his office-door is tended by a trained servant, who does not need appeal to the wife for information as to the doctor's whereabout; but, in general practice, when the domestic answers the bell, and holds a parley with the anxious individual who wishes to find the doctor, the doctor's wife is very apt to be somewhere within hearing, at the head

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of the stairs, or behind the office-door, and is very likely to take the conversation into her own hands. She, perhaps, knows the caller, and is able to dispose of him according to his merits. If it is near the time of the doctor's return, she may exercise various transparent devices for keeping him, allowing him, if he is garrulous, to tell her what has driven him to consult the doctor.

"In the early days of her married life she may have gone forth herself to pursure her husband in his route through the village, to hasten his footsteps in some new direction; but it would take something very unusual to start her off in a chase after the doctor in her maturer years. It seems to be a superstition among the more helpless class of patients that the doctor's wife must have some share of the wisdom which they attribute to her husband, and it is by no means rare for her advice to be asked as to the course to be followed when the doctor himself is not available, and she learns, in the course of years, a series of stock recommendations—that a baby in a fit may be safely put into hot water, that a broken leg can be left an hour or two until the doctor comes.

"But there are patients who resent her interference and disregard her suggestions. They will neither tell their errand nor promise to call again. They arouse, sometimes, her pity, sometimes her curiosity, a quality of which the model doctor's wife should possess but a minimum. She finds it difficult, sometimes, to manifest a proper interest in her husband's business without appearing too curious. She is seldom a gossip, or, if she is a little talkative with her neighbors, one of the staple topics of conversation will be the dreadful uncommunicativeness of her husband, whom, under such circumstances, she will possibly characterize as 'close-mouthed.'

"The doctor's wife is almost sure to hold strong opinions on hygienic subjects, and she talks with an air of learning about sewers, traps and ventilation.

"If she is the wife of a doctor who practices in the city, she holds strong ideas about medical charities Perhaps she appreciates too highly the doctor's unpaid efforts She has been known to express very radical ideas about hospitals, and night-calls she abominates. She does not like the doctor to imperil his life by attendance on diphtheria. In fact, her constant tendency is to overvalue his services. She feels that he does not receive all he ought for the exhausting labor he performs. And yet, with the sweet inconsistency which belongs to the sex, she hurries the good man off on certain occasions. She has been known to drop to sleep after the night-bell had summoned him, and, awakened again by the noise he makes on his return, oblivious of the time that has passed, to chide him that he has not yet started.

"She takes it to heart when the doctor is discharged from a case and a rival practitioner installed over it, and if the family who have thought it for their interest to make the change are numbered among her friends, a little coolness is an almost inevitable result. Her lifelong friends do not always fully appreciate her husband's peculiar virtues, and it is a constant surprise to her that any of them should continue to employ their old practitioner.

"The doctor's wife is usually emphatically the domestic manager. The domestic machinery is of necessity left to her control, for the irregular and absorbing nature of the doctor's vocation renders him somewhat unreliable as a purveyor. He is occasionally absent-minded, even when present in the body. If he undertakes to do the marketing, he will forget to order the dinner. On the other hand, the care of the children is apt to pass into the doctor's hands rather more than in other families. He gets up at night to see why John coughs, and what it is that makes Benjamin so restless.

"There is one fond delusion which the doctor's wife hides in her own breast, and never reveals, except to her mother, her sisters, and her few intimate friends, and occasionally to her husband, when he is particularly exasperating: she is sure that her husband's success in his profession is, in reality, due to her. His professional attainments are all very well, but, without her directing hand, who can tell where his lack of worldly wisdom would have led him?"

Whereupon an unfortunate, who signs himself "Cœlebs, M.D.," writes to our contemporary as follows: "Your remarks in the last issue of your valuable journal upon the Doctor's Wife call forth from my heart certain personal reminiscences not unmixed with pain. 'Pins,' says the infant prodigy, 'save a great many people's lives because they don't swallow them' So doctors' wives ruin the prospects of hundreds of us young fellows because we don't have them. Shall I tell you my sad fate? Two years ago, on the death of old Dr. Gamboge, two of us, as is the custom, moved into town to take his place. My friend and classmate, Dr. Benedick (alas, no longer my friend!) and I each arrived on the ground about half an hour after the old doctor had breathed his last. We were pretty well matched in what is popularly but erroneously supposed to be the preparation for practice, and we entered the race neck and neck. We were, as Virgil says, or might have said, *Et secare pares, et exercere parati.* Well, we took lodgings on opposite sides of the main street, and the fight began. As fast as I scored a point Benedick scored another, and somehow his points always seemed to count for a little more than mine. I went to the brick church, which was larger, and he went to the wooden meeting-house, which had the most old families. My chimney blew down and I got it in for a five liner in the local paper, but the next week one corner of his house took fire

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and he got it in for ten lines. I put on my door an old-fashioned knocker and he put in an electric bell. The country people knew all about knockers, but the electric bell was something they couldn't quite grasp (figuratively I mean; they grasped it often enough literally). Finally I fell into the common pit, and bought a horse long before I needed it or could afford it. The first time I passed Benedick on the street he smiled in an unpleasant way and said: 'Oho, I've got on to a racket worth two of that,' and the next thing I knew he was married. His wife distanced my horse in no time. She went to the sewing-circle and every good patient he ever had was brought into the conversation in some way. Even if he was only called into a house to see the cook, the women all learned that he had been there, though they didn't know (for 'I mustn't talk about my husband's affairs') who the patient was. Then, when the wedding-calls were returned, into every house went some mysterious hint, not too definite, of Benedick's wonderful success. Were there children in the family, 'The doctor is so fond of children, and they all take to him so quickly!' Had any of the household met with an accident, 'The doctor is very fond of surgery.' Were any little dresses in making, 'My husband is such a good baby-doctor. Whatever should I do if it weren't for him!' She always found out who the family physician was, and this information, of course, was the first and most important step toward ousting him. If a new-comer moved into town, the grocer and butcher were hardly more prompt in leaving their cards at the back door than Madam in presenting *her* business-card at the front door. If little Susy Simmons swallowed a pin, and the horrified mother was running amuck for the nearest doctor she could find, she was beguiled in by Mrs. Benedick to wait for her doctor, whom she 'expected in every minute.' No emergency cases ever would wait for me to come home, and whenever a patient eager for immediate healing turned away from my door, he was invariably gathered in by the siren across the way, who either entertained him till her partner's return, or else got his name booked for a visit. They were two, or more than two, to my one. It takes two men to run the Punch and Judy show—one to work the figures, the other to do the talking, get in the crowd, and take up the collection. I had to run my show alone, and didn't take up much money. I wonder if King Lemuel's mother did not have such a doctor's wife in mind when she told him the memorable story of the virtuous woman. There are certain internal evidences that she did 'She perceiveth that her merchandise is good. *Her candle goeth not out by night.* . . . Her husband is known in the gates, where he sitteth among the elders of the land.' By the way, Mrs. Benedick has already got her husband on to the School Committee, and, I hear, is thinking of sending him to the Legislature next year. There is nothing left for me but to move on and try it somewhere else. *Væ victis.* I fondly thought when I spent my money for a horse and carriage that I held the 'right bower'; but I have found that Benedick has the 'joker.' And now, before trying my fortune in a new field, I must have, cost what it may, a wife.* Bitter experience, as well as the tenor of your editoral, convince me of it."—*N. Y. Med. Jour.*

A SURGEON'S LIFE.*

I have always held that it is impossible for any man to be a great surgeon if he is destitute, even in an inconsiderable degree, of the finer feelings of our nature. I have often lain awake for hours the night before an important operation, and suffered great mental distress for days after it was over, until I was certain that my patient was out of danger. I do not think it is possible for a criminal to feel much worse the night before his execution than a surgeon when he knows that upon his skill and attention must depend the fate of a valuable citizen, husband, father, mother or child. Surgery under such circumstances is a terrible taskmaster, feeding like a vulture upon a man's vitals. It is surprising that any surgeon in large practice should ever attain to a respectable old age, so great are the wear and tear of mind and body.

The world has seen many a sad picture. I will draw one of the surgeon. It is mid-day; the sun is bright and beautiful; all nature is redolent of joy; men and women crowd the street, arrayed in their best, and all, apparently, in peace and happiness within and without. In a large house, almost overhanging this street so full of life and gayety, lies upon a couch an emaciated figure, once one of the sweetest and loveliest of her sex, a confiding and affectionate wife and the adored mother of numerous children, the subject of a frightful disease of one of her limbs, or it may be of her jaw, if not of a still more important part of her body. In an adjoining room is the surgeon, with his assistants, spreading out his instruments and getting things in readiness for the impending operation. He assigns to each his appropriate place. One administers chloroform; another takes charge of the limb; one screws down the tourniquet upon the principal artery, and another holds himself in readiness to follow the knife with his sponge. The flaps are soon formed, the bone severed, the vessels tied, and the huge wound approximated The woman is pale and ghastly, the pulse hardly perceptible, the skin wet with clammy perspiration, the voice husky, the sight indistinct.

*From the Autobiography of the late Dr. Goss.

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Some one whispers into the ear of the busy surgeon: "The patient, I fear, is dying." Restoratives are administered, the pulse gradually rises, and after a few hours of hard work and terrible anxiety reaction occurs. The woman was only faint from the joint influence of the anæsthetic, shock, and loss of blood. An assistant, a kind of sentinel, is placed as a guard over her, with instructions to watch her with the closest care, and to send word the moment the slightest change for the worse is seen.

The surgeon goes about his business, visits other patients on the way, and at length, long after the usual hour, he sits down, worried and exhausted, to his cold and comfortless meal, with a mouth almost as dry and a voice as husky as his patient's. He eats mechanically, exchanges hardly a word with any member of his family, and sullenly retires to his study to prescribe for his patients—never forgetting all this time the poor mutilated object he left a few hours ago. He is about to lie down to get a moment's repose after the severe toil of the day, when suddenly he hears a loud ring of the bell, and a servant, breathless with excitement, begs his immediate presence at the sick chamber, with the exclammation, "They think Mrs.—— is dying." He hurries to the scene with rapid pace and anxious feeling. The stump is of a crimson color and the patient lies in a profound swoon. An artery has suddenly given away, the exhaustion is extreme, cordials and stimulants are at once brought into requisition, the dressings are removed and the recusant vessel is secured.

The vital current ebbs and flows, reaction is still more tardy than before, and it is not until a late hour of the night that the surgeon, literally worn out in mind and body, retires to his home in search of repose. Does he sleep? He tries, but he cannot close his eyes. His mind is with the patient; he hears every footstep upon the pavement under his window, and is in momentary expectation of the ringing of the night-bell. He is disturbed by the wildest fancies, he sees the most terrific objects, and, as he rises early in the morning to hasten to his patient's chamber, he feels that he has been cheated of the rest of which he stood so much in need. Is this picture overdrawn? I have sat for it a thousand times, and there is not an educated, conscientious surgeon that will not certify to its accuracy.—*Med. Age.*

MEDICAL NOTES.

It is asserted that four drops of oil of sassafras added to an ounce of *iodoform* completely destroys the disagreeable odor.

Turpentine, in doses of 20 or 30 minims, is said, by a recent writer, to remove some forms of *headache* and produce a wonderfully soothing effect upon the patient.

Salol is recommended for *menorrhagia*, in the *Rév. de Thérap.*, in the following formula:—

℞.—Salol, ... 10 parts.
Acaciæ, ... 5 "
Aquæ destillat, ... 200 " M.
Fiat emulsio.

In *nervous headache* the following will often be found an efficacious and prompt combination:—

℞.—Acid. hydrobromic. dilut.,
Extract guaranæ, fluid., . āā f℥ss. M.
SIG.—Dose, a teaspoonful in half a tumbler of water, repeated *pro re natâ.*

In *insomnia*, Dr. J. W. Brayton (*Med. Rec.*) commends the use of antipyrine. He states that it is of particular value in the neuralgias and spasmodic affections occurring in those persons who cannot take opium or any of its alkalies in any food, but especially beneficial in insomnia, giving refreshing sleep after failure with the usual remedies.

For hypodermic use in *neuralgia*, Dr. East, of Mayo (*Phila. Polyclinic*), recommends the following:—

℞.—Thein.,
Sodii benzoat., ... āā ℥j.
Sodii chlorid., ... gr. viij.
Aquæ destillat, ... f℥j. M.
Six minims equals half a grain of theine.

Dr. Fordyce Barker, in the *American Journal of Obstetrics*, says the most valuable remedy for *hemorrhages* occurring at or near the climacteric, is a combination of equal parts of fluid extract of hamamelis and fluid extract of hydrastis.

In regard to the use of *iodoform* as an aseptic and antiseptic, Dr. John Wyeth, of New York, says, in the *N. Y. Medical Record*:—For two years past I have abandoned it in dressings, and have never had better results. I am forced to conclude that it is an unnecessary complication to the aseptic dressings, to say nothing of its persistent and offensive odor. The employment of the weaker sublimate solutions for irrigation, 1 to 3,000 and 1 to 5,000, the sublimate gauze dressings applied moist and kept so by protectives, will secure in my opinion, as perfect asepsis as is possible.—*Coll. and Clin. Rec.*

THE LATE PROF. BALFOUR STEWART.—We regret to announce the death of Professor Balfour Stewart, M.A., LL.D., F.R.S. Mr. Balford Stewart, who had just only completed his 59th year, was educated at the Universities of St. Andrews and Edinburgh. In 1859 he was appointed to the directorship of the Kew Observatory, and in 1867 to the secretaryship of the Meteorological Committee, which last appointment he resigned on his promotion to the professor's chair of Natural Philo-

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sophy in Owen's College, Manchester, in the year 1870, a post which he held until his death. Two years before this distinction was conferred upon him he had been awarded the Rumford medal by the Royal Society for his discovery of the law of equality between the absorptive and radiative powers of bodies. Together with Messrs. De la Rue and Loewy, he wrote "Researches on Solar Physics," and he and Professor Tait published their researches on "Heating produced by Rotation in Vacuo." Besides these he wrote a number of treatises especially on the subjects of meteorology and magnetism. The article in the "Encyclopædia Britannica" on "Terrestrial Magnetism" is from Professor Balfour Stewart's pen. Among the many works of which he was sole or joint author may be mentioned the "Elementary Treatise on Heat," "Lessons in Elementary Physics (1871), "Physics" (1872), "The Conservation of Energy" (1874), and Practical Physics" (1885). Most of these are text books on the subjects of which they treat. He and Professor Tait also produced the "Unseen Universe," a work of which twelve editions have been published. At the time of his death he was President of the Physical Society of London, and was a member of the committee appointed to advise the Government on solar physics. Professor Balfour Stewart died on Monday at Ballymagarvey, Balrath, in the County of Meath.—*London Times.*

DIPHTHERITIC PARALYSIS OF THE PNEUMOGASTRIC.—Suss (*Rev. Mens. des Mal. de l' Enf.*,) draws the following conclusions:

1. In the course of diphtheritic paralysis functional troubles are often observed in the sphere of the pneumo-gastric nerve. 2. The effect of these troubles is seen with reference to the heart's action in slowness, quickly followed by acceleration and smallness of the pulse. Precordial pain and violent pain in the heart itself are usually associated with these conditions. 3. With reference to the respiratory passages, the symptoms are dyspnea and sometimes great irregularity in inspiration and expiration. Less frequently patients suffer from Cheyne-Stokes respiration. 4. With respect to the digestive passages, there are very violent gastro-intestinal pains, and almost always vomiting of food or mucu . 5. Should all these symptoms be associated the disease would usually run a rapid and fatal course, probably within twenty-four hours. 6. If the pulmonary— and, still more, if the cardiac—symptoms are isolated, we may look for a cure in some cases, though it is not possible to say with what frequency. 7. All of the accidents occur most frequently in the progress of a paralysis of the velum of the palate. The presence of this condition should compel a physician to give a very guarded prognosis. 8. The only treatment which has been of any benefit for this diseased condition is electricity, which may be applied over the cardiac region or over the posterior region of the chest. 9. It is absolutely certain that the heart-clots found, *post mortem*, in the cases which have been studied by the author as the basis of this paper, have no bearing in explaining the phenomena which have been referred to. 10. The bulbar lesions which have been found in the course of these investigations could account for the pulmonary and cardiac disturbances only in isolated cases, and could give no information as to their curability. 11. Changes in the terminal branches of the pneumo-gastric—that is, in the fibres of the pulmonary, cardiac, and abdominal plexuses—can alone explain the peculiar phenomena which were observed in the study of the author's case. The complete explanation must come from histological investigation, which will be supplementary to the author's clinical studies.—*Archives of Pediatrics.*

HYPODERMIC INJECTIONS OF CARBOLIC ACID IN CASES OF RHEUMATISM.—According to the Vienna correspondent of the *British Medical Journal*, Oct. 8th, 1887, Professor Benedict has been using with extraordinary success hypodermic injections of a two per cent. solution of carbolic acid in the treatment of rheumatoid affections. He asserts that in even a few moments after the injection into the part the joint will be freely movable and free from pain, as though narcotized, and in recent cases joints in which there was great tenderness on pressure and distinct swelling of the bones, would be apparently free from disease a few days after the injections; not only would the pain disappear in the joints in whose neighborhood the injections had been practised, but would be markedly lessened in distant joints. Prof. Benedict believes that the carbolic acid has not only a local influence, but a general effect in causing the elimination of the rheumatic poison. He has especially obtained good results by the simultaneous use of salicylic and carbolic acids, when the salicylate of sodium is administered by the mouth in small doses, and one to three subcutaneous injections of carbolic acid being given in twenty-four hours, the course of the affection was very much accelerated and no bad consequences were observed, especially if the treatment was carried out from the very beginning of the disease. Extraordinarily good results were obtained by the method in cases of inflammation of the sheaths of tendons, especially after injury. A few injections sufficed to cut short the morbid process, and no local pain or muscular atrophy, etc., was observed, provided the disease was treated in the above mentioned way from the very outset. —*Ther. Gazette.*

POTT'S FRACTURE.—In a paper on this subject Mr. Robert Jones states that, since the original description given by Pott, a hundred years ago, no

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great advance has been made either in the anatomy or treatment of the fracture associated with his name. The clinical signs of this lesion are, briefly, a depression over the side of injury, eversion of the foot, a prominent inner malleolus, and a swelling round the ankle-joint. The fracture takes place usually about two inches above the malleolus, the deltoid ligament being often ruptured, and the astragalus separated from the tibia. Dislocation of the foot outward, it is held, is not an essential and absolutely diagnostic symptom, as a slight outward displacement may occur on separation of the tibia from the fibula, without fracture of this latter bone, and outward displacement of the astragalus. Reference is made to two cases in which the fibula was certainly intact, although there was marked simulation of Pott's fracture. The precise spot of fracture, which varies in different cases to the extent of three or four inches, is often obscured by rigidity, due to swelling The patient, guided by pain, is often able to place his finger on the exact point. On pressure upon the upper third of the fibula the patient is generally able to refer pain to the seat of fracture As a rule, the surgeon can only guess at the direction of the fracture. Prominence of the inner malleolus, though always present, is not essentially diagnostic. It occurs in certain fractures of the lower end of the tibia, and in sprains of the ankle where laceration of the deltoid ligament has taken place, a tense swelling is often found sufficiently deceptive to lead to a possible error in diagnosis. It is very often difficult to make out crepitus in cases of this fracture. Eversion of the foot usually fails to cause this symptom It is more likely to be produced by inversion, but the movement best calculated to elicit it consists in combined flexion and inversion. In twenty-nine out of seventy cases the lesion was complicated by fracture of the inner malleolus. The deformity in cases of Pott's fracture occurs and is intensified, Mr. Jones holds, through the continuation of the force which was employed upon the fracture. A foot is fractured by inversion, and then the deformity is generally inversion. Patients do not usually realize the extent of the injury, and continue to walk until a trivial becomes a marked deformity. Fracture due to direct force is less prone to luxation. In the treatment of Pott's fracture the reduction of deformity is accomplished the more readily in proportion to the absence of delay. The earliest chance should be seized of replacing the astragaloid luxation, The attempt at reduction should be long continued. If the reduction be completely effected there is no subsequent tendency to recurrence of the deformity, and, therefore, no necessity to employ splints devised to counteract special displacement. Lest, however, a little deformity remain, it is well to apply a couple of side-splints and a posterior splint, the side-splints being furnished with pads suitably arranged to minimize deformity. When the splints (which in Mr. Jones' practice are made of malleable sheet-iron) have been adjusted, the knee should be flexed and the leg be made to rest on its outer surface; the foot be maintained at a right angle to the leg. The injured limb should be kept in splints for fully five weeks. In conclusion, Mr. Jones offers a few suggestions regarding the treatment of cases in which, long after active treatment of Pott's fracture, the patients complain of pain, deformity, or inability to walk.—*The London Medical Record.*

ANTISEPTIC RULES FOR MONTHLY NURSES.—In a paper introducing a discussion on the prevention of puerperal fever, at the Section in Obsteric Medicine of the British Medical Association (*Brit. Med. Jour.*), Dr. W. S. Playfair laid down the following "antiseptic rules for monthly nurses": 1. Two bottles are supplied to each patient; one contains a solution of chloride of mercury, of the strength of one part to one thousand of water, tinted with litmus (called the 1-in-1,000 solution), the other carbolized oil (1 in 8). 2. A small basin containing the 1-in-1,000 solution must always stand by the bedside of the patient, and the nurse must thoroughly rinse her hands in it every time she touches the patient in the neighborhood of the genital organs. for washing or any other purpose whatsoever, before or during labor, or for a week after delivery. 3. All sponges, vaginal and rectal pipes, catheters, etc., must be dipped in the 1-in-1,000 solution before being used. The surfaces of slippers, bed-pans, etc., should also be sponged with it. 4. Vaginal pipes, enema tubes, catheters, etc., should be smeared with the carbolized oil before use. 5. Unless express directions are given to the contrary, the vagina should be syringed twice daily after delivery with warm water, with a sufficient quantity of Condy's fluid dropped into it to give it a pale pink color. 6. All soiled linen, diapers, etc., should be immediately removed from the bedroom.

NINETY TAPE-WORMS AND ONE GIRL.—In the *Correspondenzblatt fur Schweizer Aerzte*, Dr. Roux, Surgeon of the Cantonal Hospital in Lausanne, describes a singular case in which the patient, a girl aged twenty-one and a half, discharged (after two six-gramme doses of extract of male fern) at least ninety bothriocephali lati. The worms passed out in a bundle, the patient assisting the delivery by tearing the package with both her hands, and at the same time uttering shrieks like a woman in labor. The agonizing delivery lasted ten minutes. The mass of parasites filled up half of a chamber utensil. The disentangling and counting took exactly four hours and a half of the author's time. As an individual only such a worm was considered which had a head, and at its other end measured not less than 3 or 4 millimetres in breadth, or

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which had an absolutely thread-like (though headless) anterior end, and measured not less than one metre in length. Numerous very long ribbons, which did not answer those conditions, were left out of the reckoning; neither were any of the ribbons which had been discharged several times by the girl for a couple of weeks, previously taken into account. There could be no doubt, therefore, that the number of worms, given as ninety, in reality far surpassed that figure. The length of individual bothriocephali varied between 250 and 60 centimetres, a large number measuring only between 100 and 60. Except some slight nervous phenomena (such as occasional headaches, vivid dreams, *semi-somnambulism*), the patient did not present any morbid symptoms. She was a robust, and ruddy, and even cheerful and active, country girl, with excellent appetite and digestion, and with ninety-five or ninety-seven per cent. of hemoglobin in her blood (as Gowers-Sahli's hemoglobinometer showed). The case seems to give a support to Dr. Zschokke's theory, according to which the prevalence of bothriocephalus latus among the population residing around Lake Leman should be attributed to the eating of infected fish, mainly that of perch (*perchette*) At least the girl, who had come to the locality from Argovia about the Easter of 1884, during a period of several months' duration, in 1886, was dining on perch (and bothriocephali) once a week, or even still more often, the patient residing at the time at Bonvard, near the lake mentioned.—*Br. Med. Jour.*

THE TIME FOR THE ADMINISTRATION OF ACIDS ALKALIES, etc.—A correspondent of the *Brit. Med. Jour.* says: "My teacher, Sir Robert Christison, as far as I can remember, taught us the following rules: Alkalies should be given before food. Iodine and the iodides should be given on an empty stomach, when they rapidly diffuse into the blood. If given during digestion, the acids and starch alter and weaken their action. Acids, as a rule, should be given between the digestive acts, because the mucous membrance of the stomach is in a favorable condition for the diffusion of the acid into the blood. Acids may be given before food when prescribed to check the excesssve formation of the acids of the gastric juice. By giving it before meals you check the osmosis stomach-ward of the acid-forming materials. Irritating and dangerous drugs should be given directly after food, such as the salts of arsenic, copper, zinc, and iron, except where local conditions require their administration in small doses before food. Oxide and nitrate of silver should be given after the process of digestion has ended; if given during food, chemical reactions destroy or impair their special attributes, and defeat the object for which they were prescribed. Metallic salts, especially corrosive sublimate, also tannin and pure alcohol, impair the digestive power of the active principle of the gastric juice, so should appear in the stomach during its period of inactivity. Malt extracts, cod-liver oil, phosphates, etc., should be given with or directly after food, so that they enter the blood with the products of digestion."—*N. Y. Med. Jour.*

FECAL ANEMIA.—Sir Andrew Clark did good service recently in calling attention to the importance of constipation as a factor in the production of anemia or chlorosis in young women. Whether or not this theory of the mechanism of their causation by the absorption of the products of the decomposition of retained feces be correct, clinical experience indicates plainly enough that a very close relationship exists between the two. Not only with regard to fecal accumulations, but in respect to retained excretions anywhere, the same observation holds good. This fact accounts for the good effects which attends purgation in so many disordered conditions more or less dependent on the non-elimination of the excrementitious products. When the effect of decomposition compounds are superadded to those of non-elimination, it is not surprising if a morbid condition of things be engendered. It was incidentally remarked that fecal accumulation may take place without constipation. In other words, there may be daily but imperfect action of the bowels. Although this is a trite observation, it is but too frequently lost sight of in the treatment of these conditions. The role of ferrugineous preparations, in restoring the blood to its normal condition is an important one, but it is quite subsidary to the necessity for effecting a thorough clearance of the overloaded colon. For this purpose our forefathers resorted to a combination of iron and aloes, which fulfils every indication and has the merit of being less nauseous to take, if given in the form of pills, than the horrible blend of Epsom salts and perchloride of iron which figures in every hospital pharmacoopeia. —*Med Press and Cir.*

CONTEMPT OF COURT.—Of all the curious reading that we have enjoyed in some time, we think that offered by a communication from Dr. F. E. Stewart to the current number of the *Druggists' Circular*, certainly caps the climax. It affords a splendid illustration of the wisdom of the adage which advises the shoemaker to stick to his last. Wherever a physican strays from his own profession into the intricacies of the law, and especially of the patent laws of this country, his feet are in dangerous and slippery ground, no matter where his head or heart may be. In the present paper, Dr. Stewart attacks the recent decision of the United States District Court in the matter of the suit of Battle & Co., against the Grosses (Daniel W. and Edward Z.) for infringement of their

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copyright of Bromidia He declares that the decision is not final or binding, and advises the Grosses and druggists generally not to pay any attention to it. Dr. Stewart thus puts himself in contempt of the United States Courts and advises others to place themselves in the same foolish and dangerous predicament. The queer part of the matter, however, is, that every reason which he advances against the validity and justice of the decision is the strongest possible argument in its favor, and the reader must be obtuse indeed not to see that it is so. This view of it was evidently taken by the editor of the *Circular*, who says:—"While giving Dr. Stewart's argument publicity on account of its novelty, we think it proper to remind pharmacists that they are bound by the decision so long as it is allowed to stand"—which advice is good, sound sense, like pretty much everything that emanates from the editor of the journal quoted. —*St. Louis Med. and Surg. Jour.*

THE TREATMENT OF PSORIASIS.—Besneir uses

℞.—Naphthol (*b*). . . 1 part.
Adipis, . . . 9 parts.

The affected part is to be well rubbed with this salve before retiring, and flannel worn during the night; in the morning a bath of hot soapsuds should be taken.

If no improvement follows after five days of this treatment, pyrogallic acid is used, 5 or 10 to 100. To avoid irritation, friction is employed on small surfaces only, and these surfaces are changed every four days.

For extensive surfaces, Besnier employs a dressing of—

℞.—Acid. pyrogallic.
Acid. salicylic, . . āā gr. 90.
Ether and alcohol, q. s. to liquefy.
Add collodion flex., . ℥ 20.

—*Rev. Gén. de Clin. et de Thérap.* —*Med. News.*

ANTISEPSIS OF THE BLADDER AND URETHRA.—At a recent meeting of the French Academy of Medicine, Lavaux read an account of his method of treatment of the bladder and urethra, with the following conclusions: Continued lavage of the anterior portion of the urethra and intravesical injections without a sound, are the most simple and harmless method of genito-urinary antisepsis, which can be employed in all diseases of the urethra. The use of antiseptics and hot injections by this method greatly lessens the danger of accidents in rapid dilatation of the urethra. Rapid dilatation, for simple strictures, is greatly to be preferred, with these precautions, to slow dilatation. Intravesical injections, made without the use of a sound, are quite sufficient to maintain the calibre of the dilated urethra. By these methods the indications for urethrotomy are much less frequent. Divulsion of obstinate strictures is rendered much less dangerous by the method.—*L'Union Médicale. Med. News.*

NEW VAGINAL SPECULUM.

The accompanying illustrations represent a speculum designed by Mr. Butler-Smythe, and made by Messrs. Maw, Son & Thompson, of London. The speculum consists of two slight concave blades of unequal size, hinged together. Fig. 1 shows the instrument open and ready for use; Fig. 2 the same closed. It may be used with the

FIG. 1.

patient lying either on her side or back, and, when introduced, one blade acts as a retractor, whilst the other forms the handle. The instrument has been used for some time in hospital and general

FIG. 2.

practice, and has been found convenient for diagnosis, and useful in cases where the vagina has had to be tampooned or plugged in cases of hemorrhage. Not the least point in its favor is its portability, an important consideration in practice. The blades fold back on each other, and thus enable it to slip into the pocket, where it takes up but little room. —*Brit. Med. Jour.*

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THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

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THE BACILLUS OF CANCER.

Since the great majority of contagious and infectious diseases have been shown to be due to the presence in the tissues of a micro-organism, the medical world has been expecting some explanation as to the cause of malignant growths, and especially of cancer. The question of the contagiousness of cancer, antedates the discovery of disease germs, numerous writers having remarked on cases which came under their notice, where there was apparently a fair probability that the virus of cancer had been introduced into the tissues of healthy persons, and had produced its specific results. Some recent writers laugh at the idea of the possibility of such infection, notwithstanding numerous cases which have recently been published, apparently not so much with the idea of supporting the theory of contagiousness, as of placing before the profession facts which, other things being equal, would cause careful men to pause before delivering snap judgments on matters, which from want of sufficient scientific training they are incapable of comprehending. Thus cases of cancer of the penis in men whose wives suffered from malignant disease of the womb; of cancer growing upon a limb opposite to one on which a malignant growth already existed; of a nurse acquiring cancer after having washed for a length of time the dressings of a cancerous os, and others too numerous to recite, seem to point in a direction opposite to that of mere accidental occurrence. Till within a very short period of time, all such cases were ruled out of court as infectious by scientists, because no specific organism had been found which would in any way account for such transmissions as we have referred to above. Because Koch was unable to discover a *bacillus* in cancerous growths, not a few were ready to declare that no such bacillus could exist. But he did not find the coccus of erysipelas, yet to-day no one doubts that Fehliesen did. The discovery of a cancer bacillus was left for Scheurlen, of Berlin, who in a late communication to the Verein für inner Medecin, gave the result of his investigations in this subject. He made experiments with about forty specimens of cancer of the breast; from every specimen he inoculated twenty culture tubes, thus giving in all 800 specimens. The tumors were washed in a sublimate solution, and the "cancer-juice" scraped from the freshly-cut surface by means of a sterilized knife. He used as cultivating media, serum from a case of pleurisy, gelatine, potato and agar-agar. The growth of organisms was rapid and luxuriant, forming colorless films upon the surface of the fluid, which films afterwards became brownish yellow. At first there were found only bacilli, but later, spores made their appearance. He found the same spores in the cancer-juice, but in smaller numbers than the bacillus, whilst in sections of the tumors no bacilli were found. He had no difficulty in staining the bacillus, but the spores did not respond so easily; no method having been found successful, except Erlich's process for staining the tubercle bacillus. The spores were found both within and without the cells. For nearly two months (since Oct. 1st) Scheurlen has been experimenting with the products of his cultures. He inoculated six bitches in one of the mammary glands, and found in two, which died swellings had formed at the seat of inoculation. The swellings were not conclusive as to the theory of transmission, though they point strongly in that direction; they consist of granulation cells, epithelioid cells, together with bacilli. Scheurlen does not doubt that the results obtained are due to chronic inflammation with cancerous degeneration. It may be mentioned that in medical circles in Berlin, no decided belief in the specificity of the bacillus discovered is held, though the communication and subsequent discussion has attracted a good deal of attention. Virchow and Von Bergman have ap-

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parently thrown some cold water on the enthusiasts, and the profession generally are now looking to Koch. Fränkell, who is considered one of the first bacteriologists in Germany, objected to the methods of Scheurlen, saying that secondary infection might have occurred, and that it has frequently happened. He also pointed out that the quick growth of the bacillus, a few hours, does not correspond to the known slow growth of cancer, and that degenerate cells always form a favorable nidus for bacterial growth.

Dr. Schill, of Dresden, has been working on the same lines as Scheurlen for the past five years, and is said to have obtained results similar to his. The presentation of his view of the case will be full of interest to the medical world, but in the meantime the matter is *sub judice*, with perhaps a leaning to the supposition that a genuine cancer bacillus has been found. Dr. Bigelow, in the *Boston Medical and Surgical Journal*, says: "To those who know the ins and outs of professional feeling in Berlin, the fact that the discovery was made in Leyden's clinic and not elsewhere is not without significance." It would not be just to accuse such men as Virchow and Bergman of a jealous belittling of a new man, and their scant endorsement of his results are more probably due to a truly scientific spirit of conservatism.

SURGICAL TREATMENT OF TUBERCULAR PERITONITIS.

The views so long entertained by the profession regarding tuberculosis, have during the past year received a shock. The frequency of laparotomy, and the comparative impunity with which the abdominal viscera can be inspected and subjected to manipulation and surgical treatment, have ceased to surprise us. But that such an intractable constitutional malady as tubercular peritonitis can be remedied, by opening the abdomen, making local application, washing out, and even sponging the diseased parts, is at least remarkable. But this is not all. It is claimed that treating the abdominal disease in this manner, exerts a most favorable influence on the concomitant lung affection, if any be present. It is stated that Mr. Lawson Tait, the celebrated laparotomist of Birmingham, first performed the operation, and now claims a uniform success for it, *per se*, and a complete cure of the disease in 80 per cent. of all cases of turbercular peritonitis subjected by him to this method of treatment. But to Mr. Frederick Treves, is due the credit of first definitely proposing and successfully carying out the novel treatment for this disease. Already over one hundred cases are recorded with a mortality of less than twenty per cent., which is such a remarkable showing that we might find it difficult to believe, did not the statement come from very reliable sources. As a matter of fact, they are so well authenticated, that we are compelled to accept them, notwithstanding the violation of our preconceived opinions. Kussmaul, has lately read a report before a German Surgical Society, of thirty-six cases, of which but six died, and of the latter four died subsequently of general tuberculosis.

Some of the cases treated were first aspirated, with the view of relieving the pressure, but while this allayed the mechanical distress, it in no other way benefited the malady. It was only after the abdomen was opened and the cavity thoroughly cleaned by either pure or carbolised water, applied in large quantities, and the affected parts sometimes sponged, that the remedial results were clearly apparent. A drainage tube left in the wound is considered essential by most operators, although one at least has been successful without it. In one or more cases an injection of a solution of iodine was tried with complete success, after cleansing the abdominal cavity. The operators admit that sufficient experience has not yet accumulated to definitely establish the best method of cleansing the peritoneum, nor to clearly indicate the proper cases to select for operation. But with such alleged success, and the rapidity with which the operation is spreading among our most prominent surgeons, these desiderata will not be long delayed.

Why complete immunity from the re-accumulation of ascites obtains after the abdominal section and cleansing, does not yet appear to be thoroughly understood, especially as re-accumulation nearly always occurs after aspiration and tapping. The idea was suggested by one of the operators, that the very satisfactory results of laparotomy were produced by removing the toxic products resulting from the life of the bacilli in the tubercles, contained in the ascitic fluid, and preventing absorption and baneful effect on the system; but we would

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naturally suppose that if the ascitic fluid were the only cause of the constitutional effects, tapping should answer a similar purpose. But experience so far has taught us that this method of surgical treatment has so far excelled any former method, that we are justified in adopting it in all suitable cases. And we can only express our regret that the seriousness of the operation will prevent its frequent adoption by the general practitioner, and deter the patient from submitting to so severe an ordeal.

The surgeon is thus encroaching, step by step, on what was formerly considered the exclusive domain of the physician. The brain is now largely submitted to surgical control. The liver and the kidneys are subject to direct investigation as well as most other abdominal organs, and now so medical a disease as tuberculosis is attacked, and in some degree subdued by this aggressive surgical knife. This may be, and probably is, a result of the natural law of the survival of the fittest, to which even great physicians must submit as well as all others; for by the universal operation of so important a law, not only science, but the world advances and is improved.

THE MICRO-ORGANISM OF VACCINIA.

Much interesting research has attended the investigation of the nature of vaccine virus. Not only have scientists given much thought to the subject, because of its scientific interest, but more utilitarian reasons have been added to spur investigators to the unravelling of the mystery which surrounds the subject. There has been (*Lancet*) a reward of £1000 offered since 1883 by the Grocer's Company of London, for the discovery of a "method by which the vaccine contagium may be cultivated apart from the animal body, in some medium or media not otherwise zymotic; the method to be such that the contagium may by means of it be multiplied to an indefinite extent in successive quantities, and that the product of any number of such generations shall (so far as can within the time be tested) prove itself of identical potency with standard vaccine lymph."

Among many papers on this subject, that of Dr. Neil Carmichael, read before the Philosophical Society of Glasgow, is of great interest and importance. He has found that micrococci, often in chains are always present in vaccine lymph, whether this be humanized, or from the calf; and that no other organisms are present. He concludes that these organisms are the active principle of virus, giving the following reasons:—"They are invariably present in vaccine lymph, are uniform in size and other characters, and abound most in the purest and most active lymph; (2) they are the only living organisms found in vaccine lymph; (3) they multiply enormously when the lymph is planted on the calf or human subject, in the vaccinated tissues and subsequently in the vesicles, and this active proliferation is coincident with the active development of vaccinia; and (4), from their resemblance to other specific micro-organisms—for example, those of pneumonia and erysipelas.

For ten years past Dr. Carmichael has been experimenting on the production of artificial lymph, by cultivation. His attempts at vaccination with this cultivated lymph have not been very successful, but sufficiently so to prove the necessity for further research in this direction. He makes, as the results of his investigations the following statements:

"1. We have succeeded in cultivating the vaccine contagium in the form of a crop of micrococci, the progeny of the micrococci of ordinary vaccine lymph. 2. We have found that its failure in 90 per cent of the cases proves it to be of lessened infective power, and for purposes of general vaccination entirely unsuitable. It is of lessened infective power, but not necessarily, when it does succeed, of lessened protective power. It is not, I think, a truly attenuated lymph, because when it does succeed its success is perfect. It is lymph which, by naturalisation in a new soil, has become less infective—that is to say, less ready to germinate than the old. 3. We have succeeded in producing vaccinia in a number of children (10 per cent. of the cases) apparently susceptible, in a special degree, by inoculation of these cultures. 4. These occasional successes serve as a fresh starting point for the renewal of lymph, enabling us, not certainly to obtain a sufficient supply for general purposes of inoculation, but yet enabling us, in a soil not otherwise zymotic, to cultivate the contagium of vaccine lymph, and so to secure a fresh untainted renewal of our lymph."

COMMUNICATIONS TO THIS JOURNAL.

We solicit communications on all subjects of interest to the profession. It is our desire to make this Journal a practical helper to the physician and

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surgeon in his daily work, and at the same time to keep our readers abreast of the most recent scientific discoveries of the day as regards medicine. Now that we may succeed in the first of these objects, we feel that we shall need the assistance of the practitioners of this country, wherever and whoever they may be. Any man who has a practice, and who uses his intelligence, must meet with cases which would be instructive and interesting to his fellow-workers. But how few of our medical men think it worth while to contribute short, practical articles, or letters to the Medical Journals of this country. Very few indeed, as is witnessed by the scarcity of such communications in all Canadian Journals. The case is different with the English Journals, and with many American Journals, whose circulation is perhaps no larger, and whose readers we are sure are no more intelligent or scientific than ours.

Long formal articles are not the kind of communications of which we are now speaking. There can be no doubt that the great majority of medical men entertain views on certain subjects, and have methods of treatment which would be very valuable to the profession generally, but which, owing to the reticence of the possessors of such knowledge never see the light. Short, concise, and pointed articles, in which theories are not so prominent as facts, and good results are shown from certain methods of treatment, will be appreciated by all who read medical journals. We take it to be the duty of every medical man to add his quota, however small, to the general fund of knowledge which goes to the improvement of the condition and amelioration of the suffering of mankind.

The Cause of Tetanus.—A short time ago we drew attention in an editorial note to the probability of tetanus being an infectious disease. Lately Drs. Rattone and Carle have reported the results of their investigations on this subject to the Medical Academy in Turin (*Rundschau, Virginia, Med. Monthly*). They give the following case and conclusions:—Towards the end of 1886 a patient died of tetanus in the Hospital of St Maurice, in Turin. Two hours after death the initial lesion and some of the surrounding tissues were cut out, from which a watery emulsion was made. One month later the fluid was examined and found to contain large numbers of bacilli and cocci. Twelve guinea pigs were injected in various organs (nerves, muscles and spinal cord), all of which, with one exception, died in from six to eight days with all the symptoms of tetanus. From these animals pieces of the ischiatic nerve and spinal cord were taken out and again an emulsion made. Some of this fluid was injected into other guinea pigs and all died of tetanus. In order to make these experiments distinctive, animals were injected with putrid and septic matter and strychnine, which gave entirely different symptoms at death. The experimenters conclude that—(1) tetanus is an infectious disease; (2) an animal can be inoculated from a human being; and (3) it can be transmitted from one guinea pig to another.

Pajot on Sterility.—Speaking on the subject of obstacles to fecundity in the human species, Professor Pajot says: "Has the woman an anteversion? Say to her: 'Have the kindness, if you please, every evening when you expect to have intercourse with your husband, not to urinate for five or six hours. Don't ask why; that doesn't concern you. Only don't urinate. You wish to have children? Yes? Well then, urinate after intercourse, and not before.' If she has a retroversion, say to her: 'Madame, when your menses are over, eat plenty of eggs and plenty of rice. Take every night for three or four days a little pill which I am going to give you.' (This little pill contains simply a third of a grain of extract of opium.) 'Manage not to go to stool for three or four days. Then have intercourse with your husband, but don't go to stool till afterward.' You will say that all this is very ridiculous; yet the whole process is entirely rational and is based upon anatomical and physiological principles." This reminds us of the story of the physician's assistant who was consulted by a lady wishing to have an abortion procured. The assistant, who was an Irishman, heard her complaint, and being ignorant of any means to produce the desired result, advised her to "hold her water for three or four days, and she'd drown the little chap out."

The Spontaneous Origin of Scarlet Fever.—It is generally conceded that the ghost of the *de novo* origin of scarlet fever has been laid, but the question crops out here and there even yet. Thus Dr. Newton, the State Dairy Commissioner of New Jersey, writes in *Science*:—"I have often

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seen isolated cases of this disease beginning at a time when no other case existed in the city. Many times I have seen a single case begin without any probability of an exposure to another case, but I do not think that we are justified in accepting the theory that the disease may arise *de novo* because of our inability to find the original case. But there is much to lead us to study this side of the question, for filth may be a possible cause."

The statement that *filth may be a possible cause*, is sufficiently unscientific for the most conservative members of the profession. There is no reason to believe that because the source of infection cannot be ascertained, even after the most careful and anxious enquiry, there is, therefore, no source of infection. The wonderful power of life manifested by the virus of this disease, as shown by the distance to which it may be carried, and the length of time which may elapse between the infection of articles of clothing, and the subsequent outbreak of the disease among people who have been brought into contact with such clothing, as well as many recorded instances in which long after the *de novo* theory had been apparently proved, the real cause of the appearance of the disease was made manifest, should go a long way towards confirming our belief in the specificity of the virus, and in Virchow's doctrine, *omnis cellula e cellula*.

SMALLER MORTALITY IN TYPHOID WHEN TREATED BY COLD BATHING.—In an extensive table of cases taken from the practice of the Red Cross Hospital at Lyons M. Bouveret (*Lyon Méd.*) shows a decided decrease in the death-rate in typhoid, when the high temperature in that disease has been combated by cold bathing.

He divides the past twenty years into three periods, as follows:

I.	1866-1872.....	Death-rate, 26.2	per cent.
II.	1873-1881.....	" 16.5	"
III.	1881-1885.....	" 7.3	"

During the first period the treatment was by drugs and expectancy; during the second, cold baths and drugs having an antipyretic action were used but not at all systematically; during the third, the cold bath was used much more frequently. M. Bouveret compares this reduction to that shown by Liebermiester, at Bâle, which was from 26 per cent. to 8.8 per cent. He also states that the German Military Hospitals give a reduction from 20.8 per cent., to 8.9 per cent. during the ame periods. The public surely needs education on this point, and when in the fulness of time they shall have received it, we may hope to see the death-rate in this disease materially diminished in private practice.

ARSENIC IN MENORRHAGIA.—Dr. Palmer recommends this drug (*Med. Rec.*) in two classes of cases: (a) That of growing girls and young women—nulliparæ chiefly—in whom menstruation is not necessarily too free, but appears too frequently and continues too long. A vicious habit of irregularity of menstrual function, from some cause, becomes established, which is highly detrimental to health. Small doses (gtt.iij.) of Fowler's solution, continued during the interval as well as the menstrual time, have rarely failed to correct the irregularity. (b) The menorrhagia of the climacteric, either as to time, quantity, or duration. Here its action is less decided than in the former class, for we all realize that too frequently the aforementioned symptom at the menopause bespeaks some serious organic lesion, often a malignant disease of the uterus. Menorrhagia of malarial origin has a good remedy in arsenic.

DOSE OF SALICIN IN RHEUMATISM.—Dr. McLagan says (*Lancet*) that from the time he first introduced salicin to the notice of the profession (1874), he has never ceased to insist on the necessity of employing *large doses*. Twenty to forty grains given every hour until there is decided evidence of its action, is not too much. He finds that generally before an ounce is taken improvement has taken place, and that as the symptoms decline the dose may be diminished. In Dr. McLagan's opinion, one might as well give one grain of quinine every three hours and expect it to cure intermittent fever, as to give five or six grains of salicin and expect it to cure rheumatism. The frequently repeated and large doses are necessary, because the salicyl compounds are so quickly eliminated that, used in any other way, the patient never really comes under their influence.

COCAINE APPLIED LOCALLY IN VOMITING OF PREGNANCY.—Dr. Wm. Duncan, F.R.C.S., assistant obstetric physician to the Middlesex Hospital, reports (*Lancet*) three cases of obstinate vomiting

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of pregnancy, completely and rapidly cured by the local application of cocaine to the vagina and cervix uteri. In the first place the uterus was markedly anteflexed and tender; in the second it was normal as to position, but tender, while the third was slightly anteflexed. In all three cases the roof of the vagina and the cervix were freely painted with a 15% solution of cocaine, and a plug of cotton-wool soaked in the same solution, was carefully inserted into the cervical canal for about three-quarters of an inch. In all three cases the results were wholly satisfactory. The author wisely draws attention to the danger of causing abortion by the application to the cervical canal, which he advises should be made with great care.

STRYCHNINE AS AN ANTIDOTE TO ALCOHOL.—The benefits derived (*Lancet*) from strychnine in dipsomania, have led another observer to undertake experiments to show what the antagonistic action of that drug is to alcohol. He experimented on dogs, and drew the following conclusions: 1. Strychnine undoubtedly neutralizes the intoxicating and narcotic effects of alcohol. 2. It enables large quantities of alcohol to be taken for a considerable stretch of time without causing the usual organic lesions which follow the use of alcohol alone. 3. There are, however, limits beyond which the alkaloid itself becomes injurious to the organism. 4. Therapeutically, strychnine should be used in all forms of alcoholism. 5. It may be regarded as a powerful prophylactic against alcoholism.

CALOMEL IN SMALL DOSES IN PNEUMONIA.—The use of calomel in pneumonia has been frequently recommended by various writers and clinicians. Some physicians advise its use from the commencement of the disease; others, again, speak of its use in promoting resolution only. In solidification, accompanied with dry tongue and skin, we have derived great benefit from its early use in small doses given often. We usually give about one-twelfth of a grain every hour for forty-eight hours, or until the symptoms are relieved. From what we have seen written on this treatment, and our own experience, we are inclined to believe it reliable. The calomel, however, should not be continued if the bowels become irritable from its use.

NERVE SUTURE.—In the clinical notes of the *Br. Med. Jour.*, a case, operated upon by Mr. Croft, of St. Thomas Hospital, is reported. The posterior tibial nerve had been cut across by a stab. The ends of the nerve were found retracted an inch and a half, but were carefully sutured together with very fine silk, and the wound dressed antiseptically. Twenty-four hours afterwards "sensation was observed to be present all over the foot, but modified in character in the sole." Five weeks later the leg was entirely well, the boy having perfect use of, and perfect sensation in, the foot and leg.

MARRIAGE AND INSANITY IN IRELAND.—The *Lancet* in a review of the Dundrum Criminal Lunatic Asylum (*Am. Jour. of Insanity*) makes note of the curious fact that the single among the inmates are three times more numerous than the married and widowed combined, and adds that this fact is observable in most, if not all, Irish asylums. In the State of New York quite the contrary seems to be the rule, as an examination of the statistics of the Utica asylum shows that the number of single inmates is only about half that of the married and widowed.

ANTIPYRIN IN INSOMNIA.—Dr. Drayton (*Med. Rec.*) mentions the case of a patient in whom he succeeded in obtaining refreshing sleep, after the usual remedies, such as the bromides, chloral, and morphia had proved ineffectual. He gave six grains of antipyrin with two of antifebrin, with the result that she soon became quiet and fell asleep. She slept six hours and awoke refreshed. The antipyrin was continued for four nights with the happiest results, no more sleeplessness having been complained of.

THE WONDERS OF THE TELEPHONE.—A physician reports to us, says the *Medical Age*, December 10th, that he was saved a two-mile ride through a driving storm the other night by having the patient, a child, brought to the instrument and held there until it coughed. He diagnosed false croup, prescribed two grains of turpeth mineral, and turned in for an undisturbed sleep during the remainder of the night. He found the patient in the morning doing nicely—under the care of another doctor.

SWALLOWING ARTIFICIAL TEETH.—Mr. Eglinton writing to the *Lancet*, says a patient of his swal-

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lowed her artificial teeth. He endeavored at different times to remove them from the stomach by means of a horsehair probang, but without success. He then administered 20 grs. pulv. ipecac. with 10 grs. zinci sulph. in a cupful of warm tea, and got the patient to eat a few figs. Shortly after she vomited the teeth embedded in the figs. She complained of pain in the epigastrium, which was relieved by a few drops of tinct. opii, and next day she was quite well.

RHEUMATISM, MUSCULAR OR ARTICULAR. — A writer in the *Med. Summary* gives the following: This remedy has stood a test of *fifteen* years. It is almost sure.

℞ Citrate of lithia, . . . ʒj.
Citrate of potash . . . ʒj.

Take a teaspoonful in *hot* lemonade with sugar ʒj., and repeat every two hours.

If there is in the domain of medicine a certain cure, this is the remedy. Try it.

ANTIPYRIN IN HEADACHE.—Dr. Davies, in a communication to the *Lancet*, says he has found antipyrin in doses of ten grains repeated every hour for two or three hours, then at intervals of six hours for a day or two, extremely useful for headache due to worry and over-work. He states that it leaves no ill effects, and that it tends to prevent recurrence of the trouble.

HEAT CENTRES IN THE CORTEX CEREBRI.—Dr. Ott, in a preliminary note to the *Medical News*, says he has discovered a heat centre about the unction of the supersylvian and postylvian fissures. When this portion of the cortex is destroyed, a rise of temperature occurs which persists for several days. His experiments were made upon the lower animals.

BRITISH DIPLOMAS.—Dr. A. M. Ewing (Trin.), has taken the M. R. C. S. Eng.

CORONERS.—Dr. Grant, of Perth, has been appointed associate coroner for the County of Lanark.

Dr. Asa Gray the celebrated botanist has reached the age of 77 years. He now lies ill at his home in Cambridge, suffering from an apoplectic seizure from which it is not expected he will recover.

MR. LAWSON TAIT, has been appointed to the chair of gynecology in Queen's College, Birmingham.

Books and Pamphlets.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By Roberts Bartholow, M.A., M.D., LL.D., Professor of Materia Medica and Therapeutics in the Jefferson Medical College of Philadelphia. Sixth Edition, revised and enlarged. 8 vo. pp. xxiv, 802. New York: D. Appleton & Co. Toronto: Carveth & Co. 1887.

A work which has reached its sixth edition in a little over ten years, requires no commendation. As a text-book as well as a book of reference for the busy practitioner, it has obtained on its merits an established popularity. From a careful perusal we are thoroughly convinced that this sixth edition will in no way diminish its acknowledged value. The author has given the work a thorough revision, considerably enlarging the book, and has brought to bear a lengthened experience, not only as a teacher of Materia Medica, but as an author of various other medical works, in its pages. His facility of stating comprehensive facts in few words is seldom equalled, and his ripened judgment in selecting the really valuable from the innumerable host of new remedies so persistently pressed upon us by their ardent advocates, demands our admiration. To those whose time will not permit almost continuous reading of the medical journals, a work of this kind is invaluable, if they would keep abreast of the most advanced views and desire benefit from the more recent discoveries in the ever-changing materials of medicine.

FEVER NURSING, for the use of professional and and other nurses, and especially as a text-book for nurses in training. By J. C. Wilson, A.M., M.D., Visiting Physician to the Philadelphia Hospital, etc., etc. Philadelphia: Lippincott & Co. Toronto: Williamson & Co. pp. 201. $1.00. 1888.

This little book should be in the hands of every nurse in the country. The author is evidently a teacher, and knows how to present his thoughts in a concise and lucid manner. The language is within the comprehension of any one fit to act as nurse. Not only does he instruct *how* a given fever should be managed, but he also, so far as is possible, tells *why* such methods are adopted, giving the attendant a rational interest in the outcome of her service. The book will be read with interest and profit, not only by nurses, but also by the practising physician.

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OPERATIVE SURGERY ON THE CADAVER. By Jasper Jewett Garmany, A.M., M.D., F.R C.S. 8vo. 150 pages. Cloth. New York: D. Appleton & Co. 1887. $2.00.

This work is well written. The directions for performing operations, such as amputations, ligations, disarticulations, etc., are clear and concise. The work is not intended to take the place of manuals which treat of operations on the living, but rather to place the technique of such operations before the student or practitioner, so that, having practised them properly upon the cadaver, he may approach them with greater confidence and skill when called upon in his official capacity to deal with the living. The practice of giving demonstrations in operative surgery upon the cadaver, as well as of allowing students to perform various operations, is well thought of and considerably practised in England. To all who wish to take such a course, the work before us will be invaluable.

INSANITY: ITS CLASSIFCATION, DIAGNOSIS AND TREATMENT. By E. C. Spitzka, M.D., President of the New York Neurological Society, etc. 8vo, pp. 423. New York: E. B. Treat, 1887. Price, $2.75.

Insanity is a subject so little thought of by the general physician, and so little understood by him, that this book will be of great use. It contains numerous original ideas, and the author does not fear to differ from some of the long accepted classical ideas of alienists. He also expresses his opinions positively, a great treat for the general professional reader in this branch of medicine. As a summary of the latest ideas on insanity, the book is excellent. The method of examining the insane is well treated, as also the part on differential diagnosis. We heartily recommend the book as being one of the most useful that have lately issued from the press.

THE MEDICAL NEWS VISITING LIST; a Daily Record of Practice and Accounts, without the use of signs, and thus obviating the need of transferring. Arranged in removable tablets. Philadelphia: The Medical World. 1887. $1.50.

The object of this innovation in visiting lists is to save practitioners the trouble of carrying bulky books for recording their daily business, and to make the accounts legal by using words instead of signs. So far as we can judge from an examination of the proposed system, it will accomplish the above object, by the aid of a companion which is soon to appear as a "Ledger of Monthly Balances." This is a book of 160 pp., leather bound, and alphabetically arranged, so that each account may be readily found. Its price is to be fifty cents.

A MANUAL OF ORGANIC MATERIA MEDICA for the use of Students, Druggists, Pharmacists and Physicians, by John M. Maisch, Phar. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Third edition, with 257 illustrations. Philadelphia: Lea Bros. & Co. 1887.

This work has always been a popular one with the Pharmaceutical profession, and the present edition has been so improved as to render it still more valuable. It presents in a concise form the essential physical, histological and chemical characters of the organic drugs, rendering it a useful and reliable guide to business transactions.

REFERENCE HANDBOOK OF THE MEDICAL SCIENCES, embracing the entire range of Scientific and Practical Medicine and Alied Science, by various writers. Illustrated by chromo-lithographs and wood-engravings. Edited by Albert H. Buck, M.D. Volume V. New York: William Wood & Co. 1887.

Volume five of this comprehensive work is to hand and is fully up to the standard. Among the contributors may be mentioned Alt, of St. Louis, Buck, of New York, Henry C. Coe, of New York, Graham, of Toronto. The work is well done, and ably edited.

VICK'S FLORAL GUIDE FOR 1888.

This annual guide is to hand, and contains even more than the usual amount of information about plants and flowers. It will be sent to any address on application to James Vick, Rochester, N.Y.

Births, Marriages and Deaths.

On 28th December, Dr. J. Harrison Howell, of Shedden, Ont., to Julia J., daughter of J. H. Reckie, of Cannington.

On the 13th December, Dr. F. D. Canfield, to Florence A., daughter of James Noxon, all of Ingersoll, Ont.

On the 19th January, Dr. McCrimmon, to Isabel, fourth daughter of D. McKenzie, all of Kincardine.

On 31st December, at Little Britain, Dr. W. N. Whiteside, late of Beeton.

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THE CANADA LANCET.

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Original Communications.

TWO CASES OF UN-UNITED FRACTURE.

BY N. E. M'KAY, M.D., C.M., HALIFAX, N.S.

(Surgeon to V. G. Hospital).

CASE I.—A. R., aged 18, single, a miner, was admitted into the Hospital, on the 31st August, suffering from an un-united fracture of the left humerus.

History obtained from Patient:

The patient while working at Spring Hill coal mines, jumped off a car in motion, a rope swinging around struck him on the left arm and knocked him insensible. When he recovered consciousness, he found he could not move his arm. A doctor was at once sent for, who diagnosed a fracture of the left humerus below the insertion of the deltoid muscle. The fracture was at once set, and the splints in which the arm was first put up were left undisturbed for nine weeks; they were then removed and the bones were found un-united. The arm was thereupon put up in plaster of Paris bandage, which was removed in eight weeks, and the fracture again found un-united. A consultation was then held, at which it was decided to slightly irritate the ends of the fragment by gently rubbing them together. This was done and the arm was put up in a plaster of Paris bandage for four or five weeks. When the splint was taken off, no union was found to have occurred. He then came to the hospital for treatment.

When admitted, patient was in very good health. The left humerus was found, on examination, fractured below the insertion of the deltoid, and the arm about one inch shorter than the other. He was unable to move his arm. A consultation of the medical staff was held on the 6th of Sept., at which it was decided to re-set the bones and wire them. On the 8th of September I operated in the following way. The patient being etherized and an Esmarch applied, I washed the parts thoroughly with a carbolic solution, 1 in 40, and made an incision 3½ inches in length over the seat of fracture, and in line with the outer border of the biceps and brachialis anticus muscles. On cutting through the integument and some areolar tissue, the cephalic vein was exposed and held to one side by an assistant. I then laid the border of the brachialis anticus muscle bare, and followed it down to the bone. The soft structures being now held well apart by two assistants, I laid open the periosteum and denuded the ends of the fragments. The ends of the bone being pushed through the wound, I removed a short piece from the end of each, at right angles with the axis of the shaft, and drilled a hole through each fragment from its periosteal surface, and brought their vivified surfaces together, and held the bones in position by silver wire. The hemorrhage was then checked and the wound washed with a carbolic acid solution, 1 in 40, and its edges were held in coaptation by catgut sutures, a drainage tube being first inserted. The arm was then put up in a rectangular splint, a trap being left over the wound to enable it to be dressed without disturbing the parts. It took over an hour and a half to perform the operation, which was done under a spray of carbolic acid, and with complete antiseptic precautions.

On the 10th of September, the 2nd day after the operation, the wound was dressed under the spray. It looked well; I removed the drainage tube and left it out; there was no discharge. On the 16th of September, the 8th day after the operation, the wound was again dressed under the spray, and the stitches were removed, union having taken place by first intention. On the 16th of October, when the splint was removed, good bony union was found to have taken place. The patient's temperature remained normal throughout.

On the 18th of November, as the patient was walking on the platform in front of the hospital, with his hands in his pant's pockets, his feet slipped and he fell heavily on his left side and refractured the humerus.

The arm was at once put up by the house surgeon on a rectangular splint, and left untouched

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for about 20 days This splint was removed on the 10th December, and union found to be quite firm. I now put the arm up for two or three weeks in a plaster of Paris splint, which was made so as to embrace the shoulder. The patient was discharged, cured, on the 12th of January.

CASE II.—W. B., A teamster, aged 36, married, was admitted into the hospital on the 7th of October, 1886, suffering from an un-united fracture of the right femur.

History obtained from Patient.

On the 12th day of October, 1885, as the patient was driving a fish waggon, the horse took fright and ran away, throwing the patient forcibly on his right side on the hard sidewalk. On attempting to get up, he found he could not move his right leg. He was at once taken into the Wellington Barracks, where an army surgeon examined his leg and diagnosed "a fracture of right thigh," and put the fracture up temporarily to enable him to be carried home with safety. When he got home a doctor was immediately sent for, who put the leg up on a long side splint with an extension, and seven days after, applied short splints. For the next six or seven weeks the doctor assured him his leg was doing well. The splint was then removed, and to the surprise of the surgeon the bones were found un-united and the limb fully three inches shorter than its fellow. The leg was now put up for seven or eight weeks on a double inclined plane, which on being removed, the fracture was again found un-united, and the knee considerably swollen and very tender to the touch. During the following two or three weeks the limb was put up on a large side splint, for which a plaster of Paris spica bandage was subsequently substituted. This splint was left on for four or five weeks; it was then removed and no union found to have occurred. For the next eight or nine weeks the patient was allowed to go about on crutches. An operation was now performed, which consisted in subcutaneously irritating the ends of the fragments, and the leg was put up for twenty-five or thirty days in a plaster of Paris spica bandage; on removing this splint the bones were still found un-united. After this he was allowed to go about on crutches, and nothing was done for him until he came into the hospital. I saw the patient for the first time, seven or eight weeks after the accident, in company with Dr. F., the attending surgeon. Liston's large side splint and the extension were taken off in my presence; I measured the limb and found it fully three inches shorter than the other, and there was no attempt at union of the fragments.

On examination, the right femur was found fractured about two inches below the trochanter minor, and the limb fully 3½ inches shorter than the other. The knee was anchylosed in the straight position, and tender to the touch. On letting his weight on the leg the bones glided easily over each other, and a distinct angular bend was produced in the thigh at the seat of fracture. The hip-joint was semi-anchylosed. There was no callus formed about the ends of the fragments. His general health was good.

On the 9th of October, a consultation of the medical staff was held, at which it was decided to re-set the bones.

On the 11th, I operated in the following way:—The patient being put under the influence of ether, and an Esmarch bandage applied, I washed the parts thoroughly in a carbolic solution (1 to 20) and made a vertical incision down to the bone, six or seven inches in length, on the outer aspect of the thigh, beginning about ½ an inch below the upper border of the trochanter major; and made a second incision two inches in length, extending backward from the centre of the former and in right angles to it. On exposing the bones I found them overlapping fully three inches and bound tightly together by strong fibrous material. The lower end of the upper fragment was drawn upwards and forwards by the conjoined tendon of the psoas and iliacus, and the upper end of the lower fragment drawn up behind the other, pressing hard against it, and producing atrophy of it. The ends of the bones were very much atrophied and pointed, especially the end of the upper fragment. The periosteum being now laid open and the ends of the bones denuded, I applied extension and counter-extension to the limb by pulleys, and removed by a finger saw—the soft parts being first held well apart and protected by spatulæ—about an inch and a half from the end of each bone, and drilled a hole through each of them from its periosteal surface. I then brought the bones in position and held them there by stout platinum wire. The wound was washed thoroughly with a carbolic

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solution (1 in 40); a rubber drainage tube was inserted, and the edges of the wound were brought into perfect coaptation and held there by silk sutures; a Lister's dressing was then applied and the limb put up on a single inclined plane. Owing to the semi-anchylosed condition of the hip-joint and the shortness of the upper fragment, and also the very small size of the ends of the bones, I found great difficulty in getting the bones into proper position, and in keeping them there during the after treatment of the case. The operation which was a very difficult one, occupied three hours, and was performed under a spray of carbolic acid, and with strict antiseptic precautions. On the after noon of the day after the operation, his temperature rose to 100°, and on the afternoon of the second day it stood at 102°. From this time it began to gradually decline until the 17th day of October, the fith day after the operation, when it stood normal and remained so. On the 14th of October, I removed the blood-stained dressing under the spray; the wound looked well; there was no discharge from it. Owing to the close proximity of the edge of the splint to the wound, I found it impossible to dress it antiseptically without disturbing the parts; and to overcome this difficulty I removed the inclined plane and applied a Crofft's splint to the anterior aspect of the limb, extending from the ankle to about two inches above the highest point of the crest of the ilium; and a thin narrow wooden splint, well padded, to its posterior aspect, extending from the tuber ischii to the ankle; and to doubly secure the bones in position, I applied over Crofft's splint, one of malleable iron, 1 inch by ¼ of an inch, extending from a little below the knee to about three inches above the crest of the ilium, and shaped to fit the limb. These were held firmly in position by plaster of Paris bandage, a trap being left to dress the wound, and the whole was suspended in a Salter's swing.

On the 19th day of October, the eighth day after the operation, I again dressed the wound under the spray, and found union had taken place by first intention, except a small portion in the centre of the wound. There was a little discharge of pus from the opening, and it continued to discharge a little until about the middle of November following. On the 21st of November the splints were removed and firm bony union found to have taken place. A spica of plaster of Paris was now put on and the patient allowed to go about the ward on crutches. On the 1st of January, the plaster bandage was taken off, and a Thomas' splint for hip-joint disease substituted for it. On the 16th of Januaay he was discharged cured. The limb was about 3¾ inches shorter than its fellow. Patient objected to have any attempt made to restore motion in the knee joint. At the time of writing this article he is able to walk without crutches.

NOTES ON ACETANILIDE.*

BY J. B. M'CONNELL, M.D.

Professor Materia Medica and Therapeutics, University Bishop's College, Montreal.

Acetanilide or antifebrin, although one of the latest additions to the list of antipyretics, can hardly be looked upon now as an untried remedy. The frequent references to it in the medical periodicals indicate that it has had extensive trial.

There have been of late so many new therapeutic agents, or new applications of those already in use, heralded forth as great gains in the treatment of disease, and which have, after a brief existence, been found wanting, and disappeared like meteors below the therapeutic horizon; that the great mass of the profession are prone to regard new remedies with some suspicion; hence my apology for relating, so limited, an experience with this remedy, is that we may be favored with the views of the members of this Society who may have tested its actions.

In August, 1886, Drs. Cahn and Hepp, of Prof Kussmaul's clinic, Strasburg, published in the *Centralblatt für Klinische Medicin* a resumé of what they had discovered as being the actions of acetanilide. The drug, which may be prepared by the application of heat to aniline acetate, had already in 1853 been produced by Gerhardt, by the action of aniline on acetylchloride, or anhydrous acetic acid. It is a white, scaly powder, resembling santonin; odorless, slightly pungent, insoluble in cold water, sparingly in hot, but readily in alcohol. It melts at 113° C. and distils unchanged at 292° C., is neither acid nor alkaline, and resists the majority of reagents. It belongs to the group phenylacetamides or acetanilides, wholly different from those

*Read before the Medico Chirurgical Society, Montreal, on October, 29th 1887.

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containing the majority of antipyretics, as the phenols, which have carbolic acid, hydrochinon, resorcin, salicylic acid, or the chinoline order, which contains chinolin, kairin, antipyrin, quinine and thallin. To discover adulteration with aniline, which is *poisonous*, Yvon recommends adding hydrobromide of sodium to acetanilide, rubbed up with water. If aniline is present, a reddish-orange precipitate is found, if pure it will remain clear. Treating it with mercuro-nitrate produces a green coloring matter, soluble in alcohol.

Actions claimed for it. That in an hour after administration the temperature will begin to fall, reaching its maximum in about four hours after, when, in proper doses, normal temperature is reached or lower, its effect passing off in three to ten hours, the fall in temperature being accompanied by redness of the skin and perspiration. The pulse is reduced simultaneously and arterial tension raised; it produces no untoward effects; no nausea, vomiting or diarrhea, the appetite improving under its use. That it calms the nervous system, inducing sleep; relieves pain, headache, etc.; acts in doses of from four to fifteen grs., four grs. being equal in effect to sixteen grs. antipyrin.

Dr. Weill, a pupil of Dujardin Beaumetz, in the *Bulletin Générale de Therapeutique*, gives these conclusions: "Acetanilide exerts a predominant influence on the nervous system, manifested by collapse, after a short period of excitement; generalized anesthesia and analgesia, increased intravascular pressure and peripheral vaso-constriction; in toxic doses, progressively reduces oxyhæmoglobin, and finally changes it into methæmoglobin, and that it is of great utility in subduing morbid over-excitability in nervous diseases."

It has but little action in modifying temperature in health; large doses may cause death (25 to 50 centigrammes per kilogramme of animal). Symptoms are; stupor, prostration, fall of temperature, depression of respiration, analgesia, anæsthesia, collapse. Animals experimented upon lived 24 to 36 hours; it is not, according to Miquel, antiseptic. Its antithermic action is unequal, disease and idiosyncrasy having a marked influence on its action; it sometimes causes cyanosis, which does not appear to be harmful.

Dujardin Beaumetz and Prof. Charcot consider it superior to every other medicament in pain linked with nerve alteration, and regard it superior in rheumatic neuralgia, muscular and articular pains, to salicylic acid. It is especially useful in the painful crises of locomotor ataxia, but loses its effect in two or three weeks. This is corroborated by Fischer, of Cannstatt, and Lepine, of Lyons, who recommends 30 gr. doses if necessary; no ill effects result in non-febrile states. Fischer found it of decided advantage in affording amelioration in all forms of paroxysmal pain. Professor Dujard in Beaumetz did not find it of much service in epilepsy.

Dr. Gabriel Pavai Vajna regards it as superior to quinine in phthisis and equal to salicylic acid in acute rheumatism. It is inexpensive, being only 10 francs per kilogramme in France. Most of these effects were illustrated in the twenty cases in which I have administered it. Nine were cases of typhoid fever, in all of which the temperature was promptly reduced. The following case may be regarded as typical of its action in this disease:

CASE IX. Girl, aged 9; Oct. 25th was seventh day of fever; at 5 p.m., five grs. acetanilide were given, when pulse was 120, respirations 28, and temperature 105⅔°.

	Pulse.	resp.	temp.	
5.00 p.m.	120,	28,	105⅔°	—Face and general surface pale, dry, and hot.
5.10 "	120,	28,	105°	—Pink flush on both cheeks, pulse stronger.
5.20 "	120,	32,	104⅜°	—Forehead, neck and trunk moist, and whole surface of reddish hue; somewhat more restless.
5.30 "	112,	32,	103⅛°	—Has become tranquil and fallen asleep; skin moist, no visible perspiration.
6.00 "	120,	30,	102⅝°	—Surface in same condition; still sleeping.
6.30 "	108,	24,	100⅛°	
7.00 "	102,	24,	100°	—Asked for a piece of bread.
7.30 "	102,	24,	100°	
8.00 "	108,	25,	100⅜°	—Skin has become dry.
8.30 "	108,	30,	101°	—Pulse diminished in volume and of less force.
9.00 "	112,	30,	101⅛°	
9.30 "	112,	30,	102⅓°	
10 00 "	116,	28,	102½°	
10.30 "	120,	30,	103½°	
11.00 "	120,	32,	103°	
1.20 a.m.	120,	30,	103⅞°	

Oct. 26, 11 a.m.,—Mother states child appeared to be very feverish from 12 to 8 a.m., and was restless and drank milk frequently. Six grs. were

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given to-day; same effects observed, only there was more perspiration, and temperature became normal, remaining so for only an hour. Temperature subsequently rose on the 30th to 106°, and on the 31st to 106⅘°, but was always reduced to about normal; but the doses were increased to 8 grs. Three and four doses were required in the 24 hours to keep the temperature at or about normal, child resting quietly after each dose and taking nourishment freely at present date, Nov. 7th. It would seem in this case that the temperature, after the effects of acetanilide have passed away, rose higher through its action. An unusual degree of anemia was present when the period of convalescence arrived.

CASE I.—Boy aged 12, typhoid. Oct. 20th, 1.30 p.m., ninth day of fever, pulse 120, temperature 104⅘°; five grs. reduced temperature to 98½° in three hours. This dose acted in the same manon the 21st and 22nd. Did not again rise above 102°, and gradually declined.

CASE II. has a similar record, and also Case XVI.

CASE III.—Young lady, aged 29 years, mild typhoid. Sept. 11th, tenth day; has had troublesome headache since she became ill, and could not sleep during last two nights. Six grs. acetanilide were given at 10 p.m. Patient fell asleep in fifteen minutes and slept all night, and was free from pain when she awakened; it returned the two following days, but was slight.

CASE IV.—Lad, aged 12, typhoid. On March 28th, the twenty-seventh day of fever, temperature was 104⅘°. Six grs. acetanilide caused a profuse perspiration and slight cyanosis. Subsequently 4 grs. reduced the temperature below normal; 3 grs. was found to be a sufficient dose. After April 1st, temperature gradually came down to normal.

CASE V.—Young lady, aged 19, mild typhoid. The severe headache was also promptly relieved by 6 grs. acetanilide; did not return.

CASE VI.—Boy, aged 9, double lobar pneumonia. June 13th, pulse 144, respirations 48, temperature 105⅘°; 5 grs. acetanilide reduced temperature to normal in three hours. In five hours after dose, pulse 120, temperature 100⅘°, respirations 32. 14th, 1 p.m., pulse 140, respirations 44, temperature 106°; at 2 p.m., 5 grs. were given; at 5 p.m., temperature 97⅘°, and at 9.30, pulse 132, temperature 102⅘°, respirations 36. 16th, 5 grs. at 2 p.m. reduced temperature from 105 to 101⅘° in three hours; 11 p.m., pulse 112, temperature 102⅘°, respirations 56. 19th, 11 a.m., respirations 68, pulse 120, temperature 103⅘°. 20th, temperature normal.

CASE VII.—Septicemia (Puerperal). Patient aged 37, her first child. Forceps used and artificial extraction of placenta; antiseptic uterine douches were used and iodoform suppositories. Temperature was not high until the tenth day; 104°; on the eleventh day 8 grs. acetanilide reduced temperature to normal. Did not rise again above 102°; curette used on the thirteenth day; in two days after, temperature was normal, with slightevening exacerbations.

CASE VIII.—Young man, aged 23, pneumonia (double). On Oct. 16th, sixth day, pulse 120, respirations 64, temperature 103⅘°; 8 grs reduced temperature, causing profuse perspiration. 17th, 1 p.m., temperature 102⅘°; 8 p.m., temperature 99⅘°, pulse 90, respirations 36.

CASE X. has much the same record as case IX.

CASE XI.—Puerperal Septicemia. Patient confined in a house where there was a case of erysipelas in next room. All antiseptic precautions were observed, but next day temperature was 105⅘°; uterine douches of corrosive sublimate, followed by carbolic acid and then iodoform suppositories were used; 8 grs. acetanilide brought temperature to normal, with profuse sweating. This dose was repeated on the two following days, after which there was no further elevation of temperature.

CASE XII.—Nervous headache, lady aged 28, had lasted two days; 5 grs. acetanilide gave complete relief in about two hours. Same results in two subsequent attacks.

CASE XIII,—Erysipelas. Boy aged 15. Oct. 27th, noon, 7 grs acetanilide were administered; temperature was 104½°. In three hours temperature was still 103°; 8 grs. were then given; in two hours temperature was 102°. 28th, 2.30 p.m., pulse 110, temperature 105⅘°; 15 grs. acetanilide were given. In 3½ hours temperature was 100°; in 4½ hours after, respirations 20, temperature 99⅘°; perspiration has ceased. For several days these large doses were required to keep temperature down; no fever Nov. 2nd.

CASE XIV.—Lady, aged 22, one day ill. Severe headache, general soreness, pains in back, anorexia, coated tongue, and temperature 104⅗°; 8 grs.

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acetanilide at 10 p.m., purgative in morning. Went asleep shortly after taking powder. Temperature next day normal; no headache; feeling quite well.

In CASE XV, typhoid, young man aged 21, half-hour record of temperature was kept on the two occasions when it was administered, with results similar to Case IX.

The latest accepted theory as to the cause of fever, according to H. C. Wood, Macalister, of Glasgow, and others is, that it is a disturbance of calorification in which through the nervous system, heat production and heat dissipation are both affected; that there is a nervous centre which inhibits the production of heat and a thermogenic centre (located by Aronsohn and Sachs at the inner side of the corpus striatum), which excites tissue change; that heat dissipation is regulated by the vaso-motor nerves; that temperature is no indication of the amount of fever, as heat production may be normal, but elevation of temperature result from diminished heat loss, and we may have increased heat production (pyrexia), but owing to accelerated heat loss, no elevation of temperature, hyperpyrexia ensues when heat production is increased, with lessened heat loss

Antipyretics act either by lessening the production of heat, as quinine, salicylic acid and the cardiac and vascular depressants, or by increasing the loss of heat, as alcohol, sudorifics, antipyrin, etc. Acetanilide belongs to the latter group.

From the reports of these cases we can learn: That acetanilide in proper doses will, in the elevation of temperature of typhoid fever, pneumonia, erysipelas, septicemia, and doubtless other febrile states, bring about a state of apyrexia, or a subnormal temperature if the dose is larger, in from two to four hours; the temperature beginning to fall usually in from ten to fifteen minutes after its administration, instead of an hour, as hitherto usually reported; the reduction is ordinarily 5° or 6°, and may be over 8° (Case VI. $8\frac{2}{5}$). The dose varies from 6 to 15 grs. for an adult, is easy of administration and best given in wine or simple elixir. In an hour or two after the lowest temperature the dose produces is reached, it again begins to rise and in four to eight hours may be as high as before the dose was taken; or it may not run as high again for several days, or even throughout the illness.

Idiosyncrasy or individual susceptibility to the action of acetanilide varies considerably, and in cases where there is not any apparent evidence for anticipating dissimilar effects. Disease also exercises a modifying influence. Cases of erysipelas require larger than ordinary doses. Hence it is advisable to begin with small doses and increase, if necessary, until the quantity which will bring the temperature down to normal, is learned. It first stimulates the vaso-motor (constrictor) system, leading to increased arterial tension, quickly followed by dilatation of the cutaneous arterioles, thus permitting increased radiation of heat; perspiration immediately supervenes and the temperature rapidly declines, with lowered arterial tension. It is an analgesic, giving speedy relief in neuralgic pain and headache, being especially serviceable in the headache present in the early stages of typhoid fever. It is also a reliable hypnotic and nervous sedative in the sleeplessness and excitability of febrile states. It doubtless, in over doses, as evidenced by cyanosis, inhibits the respiratory functions of the blood, probably as has been explained, by so modifying the hæmoglobin, that less oxygen is conveyed by the corpuscles, and a state of internal asphyxia ensues; the diminished oxidation resulting in lessened heat production. It has no influence in shortening the course of zymotic affections; hence in typhoid, would not consider its administration indicated unless the evening temperature was over 103° F., the dose to be repeated every six hours as necessary. No untoward effects result when proper doses are given; on the contrary, it is almost an invariable remark of patients taking the remedy that they feel better, and in a state of apyrexia, may experience hunger. Even in over doses the temporary cyanosis is quickly recovered from without any evil result.

ON THE NECESSITY FOR A MODIFICATION OF CERTAIN PHYSIOLOGICAL DOCTRINES REGARDING THE INTERRELATIONS OF NERVE AND MUSCLE.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.*

THE CHEYNE-STOKES RESPIRATION.

What seems a lower depth of absurdity, if possible, has yet to be reached in the explanations of the Cheyne-Stokes respiration. I quote here from Dr. L. Sansom's "Physical Diagnosis of the

* Read before the Physiological Section of the Ninth International Medical Congress, held in Washington, September, 1887.

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Heart," (*a*) by whom Traube's theory on this subject is said to be "the most plausible." According to Traube, "the first thing which occurs is the establishment of a condition of impaired irritability of the respiratory centre through mal-oxygenation; the long respiratory arrest gives time for the accumulation of carbonic acid in excess in the blood. Arrived at a certain maximum this begins to stimulate, slowly and imperfectly at first and afterwards in increasing degrees, the centre, so that it develops the respiratory efforts till they culminate in dyspnea. Then as the centre ceases to be stimulated or becomes exhausted, dyspnœa again supervenes."

It will be observed that here the *deficiency* of oxygen and subsequently the *presence* of carbonic acid are made to play opposite and antagonistic parts! The lack of oxygen (instead of stimulating the medulla, as supposed by Dr. M. Foster) first enfeebles the respiratory centre, in the medulla, and then the same blood, still deficient in oxygen, but now loaded with carbonic acid, counteracts the previous depression, and tones up the weak nerve centre, so that ere long it displays extraordinary activity. But, unfortunately, this exhilarating pabulum—carbonic acid—is soon exhausted, and the nerve centre resumes its former feebleness till a new supply can be procured. The physiologist is certainly quite impartial, and allows the rivals to have their "innings," turn about. How such nonsense as this "most plausible theory" could find a place in physiological literature seems explicable only on the exigency of the hypothesis so long in vogue.

Filehne's theory in explanation of this state is more complicated, and at least equally absurd. Instead of the respiratory centre being stimulated (as Traube says), it is the vasomotor centre which is excited by the presence of carbonic acid. Arterial contraction follows till "a gradually increasing anemia of the respiratory centre" is brought about. This anemic condition excites the respiratory centre "and inspiration becomes more and more deep," till oxygen is supplied to the blood; "the arterial spasm is thus relieved," owing to the freshly oxygenated blood failing to stimulate the vasomotor centre (so as to contract the arteries), as the carbonic acid had previously done. With the relief of arterial spasm, and a consequent normal dilation of the arteries, "the anæmia of the respiratory centre passes off, and with it the exaggerated impulse to respiration, and breathing once more becomes superficial." (*b*) In other words the respiratory centre functionates best when it is supplied not only with non-arterialized blood, but when it has too little even of that; as soon as the anemia passes off, and this nervous centre gets a fair supply of blood, it ceases to act—suspends business—till the better times of bad blood and deficient blood come round again, when it is moved to activity once more!

There is still another explanatory theory to be noticed, which I find referred to editorially in the CANADA LANCET for February, 1886: "Bramwell, who follows the teaching of M. Foster and others, supposes that the respiratory centre consists of two portions, one accelerating (or motor), and one inhibitory. He further believes that these two portions are acted on in opposite directions by the blood, whether arterial or venous. Thus while venous blood stimulates the discharging cells of the centre and depresses the inhibitory portion, arterial blood acts in exactly the opposite direction." At the close of the period of apnœa, the discharging portion of the centre is stimulated by the venous blood," with its excess of carbonic acid, and this same blood, at the same time is depressing the rival, or inhibitory part of the centre. The motor or discharging portion of the centre triumphs; respiration becomes established and even exaggerated. Unhappily, the victor fails to "hold the fort." As soon as the blood becomes "fully oxygenated," the "inhibitory portion becomes stimulated and gradually overpowers the discharging portion," so that "the respirations grow weaker and weaker until the state of apnœa results." Then the suspension of breathing restores the venous character of the blood and accumulates a store of carbonic acid, the stimulation of which reanimates the centre previously depressed by the presence of oxygen in the blood. Such appears to be the scope of this theory.

In this, as in the previous explanations, arterial blood is made to play the part of a depressor and paralyzer of the respiratory process, which it is constantly tending to arrest; but while paralyzing

(*a*) P. 37.

(*b*) P. 137.

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one portion of the respiratory centre it is stimulating another; and a similar double character is attributed to the action of venous blood. Thus during the brief time from the beginning of apnœa to the culmination of dyspnœa—a period rarely exceeding one minute—the blood passing to the brain is called upon to exert four different and even diverse effects; first as venous blood stimulating one part of the respiratory centre and paralyzing another portion of the same centre; reverse effects being produced by the same blood on its becoming oxygenated. One is really at a loss to understand how such an explanation could have been admitted to a place in physiological literature. Again it is the exigences of an erroneous theory which have led to such a complicated and unsatisfactory hypothesis. If it be asked how the state of apnœa is induced by forced vigorous respirations, if it be not due to an excess of oxygen introduced into the blood, and how the opposite condition or demand for air by breathing seems to attend the absence of oxygen and the presence of venous blood, I can only answer as to the last that if no better explanation than that venous blood is a stimulant has yet been found, some better explanation is surely to be looked for. And as to the state of apnœa referred to, I find Dr. Austin Flint stating that "according to Hoppe-Seyler, apnœa, in the limited sense above mentioned, is to be attributed, not to an excess of oxygen in the blood, but to fatigue of the respiratory muscles." (*a*)

A NEW THEORY SUGGESTED.

Dr. Sansom regards the condition of the respiratory centre in this case as one of paresis and direct exhaustion. He shows that during the apnœal period "the arteries are strongly contracted." The proof of this is found in the rise of arterial tension in the depression of the "great fontanelle" of the head, and also in the arrest of the process by the inhalation of nitrite of amyl, which dilates the arteries. On the theory of these pages, arterial contraction is due to vasomotor nerve depression or paralysis; and accordingly we find here that the vasomotor centre, as well as the respiratory centre, is depressed in function. It has been amply shown above, that contraction of the arteries occurs in the dying and is complete in death. It is also one of the prominent phenomena during the last stages of asphyxia and is invariably attended by venous fullness. The condition present during the stage of apnœa in the Cheyne-Stokes respiration, with its contracted arteries and dilated veins, appears to correspond very closely to that present as death approaches and in the latter stages of asphyxia. The original paretic and exhausted condition of the respiratory and vasomotor centres is aggravated by the further depression caused by mal-oxygenation of the blood; which, when venous and loaded with carbonic acid, is invariably a depressing, and never a stimulating agent to nerve function. Vasomotor nerve failure induces contraction of the arterioles, systemic emptiness and venous engorgement, as the foregoing examples abundantly prove; and as a consequence, the great mass of blood "becomes lodged and hidden as it were" in the great venous trunks. At that moment death is very near, but as the heart continues to beat, it is fair to assume that a small quantity of blood still finds its way through the lungs, and, from its very scantiness, is capable of being ærated by means of the exchanges of gases still going on in the lungs, owing to the presence of residual air during the temporary, partial or complete arrest of respiration. As a consequence the quantity of blood reaching the nerve centres, though small, is at least partially oxygenated, and serves to revive the function of these centres "imperfectly at first," but with momentary improvement. The effect of this revival on the vasomotor centre, is to facilitate the dilation of the arterioles; in which the pulmonary vessels share, permitting, ere long, the inrush of venous blood from the distended vena cava and portal system, and its transmission onwards through the heart and lungs. This corresponds to the period of increase in respiratory function, in which the laborious efforts of a feeble mechanism have been mistaken for an "exaggerated impulse" from excited and overacting or "exploding" nerve centres. Meanwhile, impure blood from the venous reservoirs (finding an entrance through the now fairly dilated pulmonary vessels) begins to fill the lungs in such a quantity (as it is drawn onwards by an inequality of pressure, towards the as yet unfilled arteries) that the whole mass of blood, failing to be arterialized with sufficient rapidity, again becomes unfit for the

(*a*) Prac. of Med., 5th Ed., p. 70.

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maintenance of nerve-function and the perpetuation of processes depending upon it.

In such a case a previously weak organ or centre is the first to suffer. The medulla oblongata is such an organ in this case, and its contiguous centres for respiration and circulation fail together; bad blood and deficient blood, acting on centres previously paretic or enfeebled, have done their work, and again the respiration is suspended. The vasomotor centre is again so functionally weakened that it loses control of the arterial muscle—the "inherent contractile force," which all physiologists assign to muscular tissue, thus freed (as in the example enumerated above) induces "the strong arterial contraction" referred to by Dr. Sansom, which contraction of the artery is all the stronger the nearer nerve force is to cease in the extinction of life. This arterial, or systemic contraction, again empties the lungs and refills the venous reservoirs from which the blood is again drawn, at first slowly and then again more rapidly, as the process repeats itself. Here, then, is an explanation of the Cheyne-Stokes respiration based upon sound, though as yet unacknowledged, physiological principles according to which paretic and enfeebled nerve centres are helped by their appropriate pabulum—oxygenated blood—and are overwhelmed and have their function suspended by what is naturally calculated to poison and paralyze them, impure venous blood, deficient in oxygen and loaded with carbonic acid.

THE INTESTINAL AND UTERINE MUSCLES.

In sustaining the contention that, as a rule, muscles of the involuntary class contract, not when stimulated by their appropriate nerves, but when deprived of nerve energy, I have not yet alluded to the involuntary muscular fibres of the intestines and uterus. The antagonism of nerve and muscle is not here so evident as in the cases already cited, but here the relations of nerve and muscle have not as yet been completely investigated. (*a*)

Dr. M. Foster states that section of the vagi "renders difficult the passage of food along the œsophagus," and causes "a spasmodic contraction of the cardiac orifice of the stomach; in other words, the tonic action of the sphincter is increased"; (*b*) facts which sustain what has been already stated above as to the non-paralyzation of the muscles concerned, after section of their nerves. The peristaltic movements of the intestine, he states, may occur "wholly independent of the central nervous system," and are "at bottom automatic." (*c*) We have it on the authority of the late Dr. W. B. Carpenter, F.R.S., that "the intestinal tube from the stomach to the rectum is not dependent upon the nervous centres either for its contractility or for its power of exercising it, but is enabled to propel its contents by its own inherent powers." (*d*) So also of the uterus, the contractions of which are not due to a reflex activity of the spinal cord, but to its own inherent power of contraction; parturition having taken place after destructive injury and paralysis of the cord, and even after somatic death. (*e*) In these cases, also, the nerve would seem to be useless as the ally of the muscle, but would play an important part in controlling and regulating, by antagonizing, its contractile energy.

I must notice, in this connection, an observation of Dr. M. Foster regarding the bladder. He says: "The escape of the fluid [from the bladder] is, however, prevented by the resistance offered by the elastic fibres of the urethra, which keep the urethric channel closed. Some maintain that a tonic contraction of the sphincter vesica aids in, or, indeed, is the chief cause, of this retention. The continuity of the sphincter vesica with the rest of the circular fibres of the bladder suggests that it probably is not a sphincter, but that its use lies in its contracting after the rest of the vesical fibres and thus finishing the evacuation of the bladder. On the other hand the fact that the neck of the bladder can withstand a pressure of twenty inches of water so long as the bladder is governed by an intact spinal cord, but a pressure of six inches only when the lumbar cord is destroyed or the vesical nerves are severed, affords very strong evidence in favor of the view that the obstruction at the neck of the bladder to the exit of urine depends upon some tonic contraction maintained by a reflex or automatic action of the lumbar spinal cord." (*f*) But this experiment admits of a very different inference. We have just seen, on the authority of Dr. M. Foster, that section of the chief motor nerves of the stomach

(*a*) Dr. L. Brunton. (*b*) Phys. pp. 346, 347.
(*c*) Phys. p. 348. (*d*) Hum. Phys., p. 410.
(*e*) Ib., pp. 979 and 980. (*f*) Phys., p. 448.

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"increases the tonic actien of the sphincter" of the stomach, as we had before seen it does of the entire contractile tissues of that viscus. We have a right to look for a similar increase of tonic contraction in the bladder, when deprived of its nervous connection with the spinal cord, or when the latter is paralyzed. Admit that here, as in the examples cited above, the spinal nerves exercise a restraint over the contractile fibres of the bladder, tending to prevent its contraction. With this restraint intact, the bladder, is able to bear a pressure of twenty inches of water before the sphincter is overcome; whereas, with nerve influence withdrawn by section or paralysis, and the muscular fibres of the bladder set free to contract (as in the case of the esophagus and stomach), the resistance at the outlet, though also relatively increased, is overcome by the superior expelling force from above with the aid of only six inches of water-pressure. The same principle applies to involuntary discharges from the rectum, which Drs. Todd and Bowman say is due not to paralysis of the sphincter, against which the feces are driven, but to the "active pressure of the parts above which are not paralyzed."*(a)* The "parts above" are the intestinal muscles, which in the last stages of exhausting disease (when such discharges usually occur), have attained their freedom, just as the arterial muscles do under like circumstances, owing to the general decadence of nervous energy.

VOMITING OF PREGNANCY.

With the evidence before us as to the contraction of the gastric muscle on severance of its nerves, vomiting in general may surely be regarded as due to nerve depression rather than to nervous excitation. An additional observation in proof of the same is to be found in the fact that injury of the vagus may produce constant vomiting(*b*), and further, that vomiting is mentioned by Dr. C. Bastian among the symptoms of hemiplegia. (*c*) An explanation of the vomiting of pregnancy would be found if we might assume that a monopoly of nerve energy was being expended in the uterus, owing to the extraordinary developments taking place in that organ, thus starving the gastric nerves, so to speak, which, no longer able to sustain the gastric muscle, permit the untimely and abnormal contractions of that viscus. That this occurs chiefly in the early months of pregnancy might be accounted for by the unusual demand rather suddenly made upon the nervous resources, which tend to equalize their expenditure as the months go on and the organism becomes accustomed to its new condition.

(To be Continued).

(*a*) Path. Anat., p. 180.
(*b*) Bryant's Surgery, Amer. Ed., p. 208.
(*c*) Brain Disease, p. 56.

CASES IN PRACTICE.

Lilly I——, æt. seven years, a pale, thin, sallow child, had for the past three years been greatly troubled with worms, often passing a large number after taking the usual vermifuges. General health had been good; active in habit and cheerful. Had been out the day before I was called in, playing in the snow in the intensely cold weather the first week in January. Came home complaining of feeling sick with pain in right iliac region. I was called in on the following day, 7th January, and found her feverish, vomiting and restless, with anxious expression and great pain on pressure over painful region. On her mother telling me that she had vomited as well as passed, per rectum, several large round worms, I prescribed santonin with calomel, and gave an alkaline fever mixture. The next day she was less feverish, had less pain, but the vomiting was incessant, with considerable prostration. I ordered bismuth and oxalate of cerium and brandy. The symptoms were worse on the 9th, the pain on pressure being greater and extending over a greater area. Repeated the santonin, and gave scale pepsine, which apparently allayed the vomiting for a while. On the 10th her sufferings were so severe that I was obliged to give opium, with the effect of easing the pain and stopping the vomiting, but the tympanites increased. In the meantime injections had been given to keep the bowels open.

On 11th, all symptoms were worse; pain incessant, tympanites great, vomiting large quantities of green liquid, She died at 10 p.m., perforation evidently having taken place. No worms had passed for several days, but the vomiting being so troublesome it was impossible for her to retain medicine or nourishment.

Assisted by Dr. Storms, I made a hasty post mortem, which was all that could be obtained

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under the circumstances. On opening the abdomen, we found the bowels covered with pus, and the usual evidence of extensive inflammation. In the stomach we found two or three large lumbrici, but the duodenum and whole of the intestines down to the rectum were completely filled with large round worms. At every incision I made I could draw out masses of worms twisted together in every way. I suppose out of some eight or ten incisions I took over one hundred worms, but this did not represent a tenth part of what the intestines evidently contained. Lack of time prevented me making a thorough examination, and finding the exact number present. I have never before met such a case, and perhaps it may be of interest to some of your readers.

WM. GEDDES STARK.

Hamilton, Feb. 10th, 1888.

CASES IN PRACTICE.

The following observations may be of interest to the profession, showing as they do how an intercurrent rash may be developed during the course of an attack of chicken-pox or small-pox.

W. F. B., æt. 10 years, was attacked with varicella. Pocks full and large on Monday, 16th inst.; on Wednesday, 18th inst., scarlatinal rash appeared; and on Sunday, 22nd inst., the rash was fading rapidly. The boy now appears to be doing nicely. The scarlatinal rash was profuse. Nearly 21 years ago, during an epidemic of small-pox, I attended a young woman on whom, on or about the second week of that disease, a rash appeared in the interspaces of the pocks, which developed in the usual time, into an apparently well marked case of measles, ran the usual course and disappeared, ere the traces of the pocks had disappeared.

A. ARMSTRONG.

Arnprior, Feb., 1888,

Correspondence.

OUR LONDON LETTER.

(From Our Own Correspondent.)

LONDON, Feb. 12th, 1888.

CLINICAL NOTES.

The following case of severe endocarditis, with recovery under large doses of sodium sulpho-carbolate, may prove of interest to readers of the LANCET.

Patient, Ellen H., aged twenty, under care of Dr. Sansom, London Hospital, was poorly nourished, somewhat anemic, extremely weak and prostrate. She complained of a sensation of weight at the heart and a pain that encircled her at the level of the diaphragm. Had some family history of rheumatism, and the patient herself was said to have suffered from rheumatism, with inflammation of the lungs, twelve months previously. Present illness commenced with sore throat, followed by pain in the head and left side, and for a week before admission she coughed and spat up a little blood. Breath sounds were deficient at base of left lung, together with slight comparative dulness. The outline of the heart, as determined by percussion, seemed normal; there was a soft systolic murmur at the apex. The urine was of sp. gr. 1020, acid, contained a little mucus, but no albumen. Patient was fretful and complaining, dozing during day, and wakeful at night, asserting that she suffered pain in varying situations; frequently groaning. The temperature was 104.5° F. For seven weeks she continued in a very unsatisfactory condition. During this time the signs of auscultation of the heart varied considerably. The systolic murmur which was at first soft and slightly pronounced, became musical in quality, and was heard down the left border of the sternum, as well as in its former situation. The second sound heard over the site of the pulmonary valves, was one day slightly pronounced, on another it was accentuated, on another but feebly heard. Five weeks after admission a short diastolic murmur was heard at the left border of the sternum, at the level of the sixth rib; this became more and more marked and was heard at a higher level, showing that the endocarditis was progressing. Observation of the pulse by the finger indicated low tension, but not nearly to such degree as was revealed by the sphygmographic tracing. The general condition of the patient somewhat resembled that of typhoid; the peculiar hebetude, constipation, alternating with diarrhea, continued prostration, rapid wasting, and irregular breathing, the rate of respiration varying from twenty-eight to forty-eight.

The patient was first put upon tincture of perchloride of iron in fifteen minim doses, with twelve minims of tincture of digitalis; the throat, still sore, being gargled with a solution of chlorate of potassium. This plan of treatment, with a slight

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opiate occasionally, was continued for thirteen days, then alkalies with digitalis were administered. The case showing no amendment, quinine sulphate in five-grain doses with hydrobromic acid three times a day for five days, twice a day afterwards, was prescribed, and small blisters were applied over the heart region. There being no improvement, but the reverse, the sulpho-carbolate of sodium in thirty grain doses three times a day was administered. Carbolized oil, one part of pure carbolic acid in four parts of olive oil, also was rubbed into the chest and back twice a day. At the end of five days the general condition began to improve, and two days after it was noted that the patient slept well and had a good appetite. She still made many complaints of pain, and the mental condition was unstable, but there was a progressive improvement in all the general signs, and after twenty-three days of this treatment, appetite was good, bowels regular, temperature normal and patient asserted that she felt better. She was now in a totally different mental condition, the hebetude having quite passed away. The sulpho-carbolate was now omitted and the tincture of perchloride of iron, ten minims with five minims of tincture of digitalis in infusion of quassia, ordered, and shortly afterwards the patient was discharged, active, cheerful and bright.

In cases of ozena, the following is prescribed at the hospital for diseases of the throat and nose: ℞—Sod.-bicarb., grs. xij; acid carbol., gr. iss; aq. ad. ℥j; fiat lotio. Sig.—Tablespoonful in half a teacupful of lukewarm water, to be sniffed up the nose night and morning, followed by insufflation of equal parts of iodol and bismuth carb., and pil. strych. et ferri given three times a day.

In acute tonsillitis, the following treatment proves to be most effectual. First washing out the mouth and pharynx with liq. calcis, then freely rubbing the inflamed tonsils every hour with sod. bicarb., applied with the finger; the following mixture being taken internally: ℞—Tinct. ferri. perchlor., ʒij; glycerine ad. ℥ij. Sig.—Teaspoonful every two hours.

In post nasal catarrh associated with deafness, the following is a favorite lotion: ℞—Ammon. chlorid., ℥j; sodii. chlorid., ℥ijss. Sig.—Teaspoonful in tumblerful of warm water, to be used with nasal douche twice daily.

In otorrhea: ℞—Zinci sulph., grs. v; acid carbol., grs. v; aq. ad. ℥j. Sig.—To be used with an equal quantity of warm water, a little squeezed from cotton wool into the ear five or six times daily. This may be advantageously followed by ℞—Thymol, grs. iij; spts. vin. rect., ʒvj; aq., ℥iij, fiat lotio. Sig.—To be used in the same manner. In all cases of pain in the ear, as well as ordinary earache, the following will almost invariably give relief: ℞—Plumbi acetas, grs. iij: tinct. opii, ʒij; glycerine, ʒiij; aq. ad., ℥iij. Sig.—To be warmed and a little dropped or squeezed from cotton wool into the ear.

In chronic eczema of the external meatus, the following ointment is found most beneficial: ℞—Liq. carbonis detergens ♏x; liq. calcis, ♏xx; ungt. hyd. nit. dil., grs. xx; ungt. zinci. ad., ℥j; ft. ungt. Sig.—To be applied with a brush three times daily.

In chronic non-suppurative catarrh of ear, the following inhalation is very effective: ℞—Tinct. iodi, ether acetic, āā ℥j. Sig.—Twenty drops in a pint of hot water (about 150° F.), for inhalation two or three times a day by the Valsalvan method.

Canadian.

OUR NEW YORK LETTER.

From our Own Correspondent.

New York, Feb. 18th, 1888.

Cocaine, as a local anesthetic is used of course largely by the eye, nose and throat specialists, but Dr. Wyeth, Professor of Surgery at the N. Y. Polyclinic, is very enthusiastic as to its value in minor and genito-urinary surgery, and uses it extensively in his clinics, where it certainly does give splendid satisfaction.

A doctor attending the Polyclinic, had on his left thigh, in the gluteal region, a lipoma of the size of a large goose-egg. Dr. Wyeth removed the tumor, using cocaine as an anesthetic. Along the proposed line of incision, say three inches or more, he injected a 4 per cent. solution of cocaine, introducing the needle and injecting a few minims, withdrawing it a little and injecting a few more, and so along the line. In all he injected about two grains. While dissecting out the tumor he injected in the tissues a few minims on the slightest pain being felt by the patient, so that the removal of the whole tumor caused the patient no

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pain whatever. The wound was sewed up, dressed antiseptically, and the patient dressed and went about his work, feeling no discomfort from the operation. The only pain felt at all was that caused by the hypodermic puncture. Of course the whole of the cocaine was not absorbed, as the greater portion was washed away by the blood and irrigation when the incision was made. Three grains injected at once into the circulation will cause no bad symptoms, and Dr. W. A. Hammond says he injected into his own circulation at one injection 18 grains; symptoms of intoxication ensuing, but nothing alarming. Dr. Wyeth advises that when much cocaine is used, it be let into the general circulation gradually; for instance, if operating where a tourniquet is employed, to loosen the tourniquet every now and then and allow the cocaine to gradually enter the circulation, and no bad symptoms will ensue.

In performing internal urethrotomy, his mode of procedure is about as follows. The day previous to operation, he gives the patient oleum gaultheria to sterilize the urine, a property which this drug seems to possess, and by this means urethral fever is prevented. At the time of the operation the stricture is localized by means of an exploring bougie, consisting of a long flexible shaft of about $\frac{1}{10}$ inch in diameter, and having a bulbous extremity, in which the shoulders of the bulb come off at right angles to the shaft, a modification of the olive-shaped bulb. The bulbous portion is graduated in scales of $\frac{1}{50}$th of an inch. Introducing the bougie it passes readily till the stricture is reached, and passing it through the scricture, its withdrawal is attempted when a decided resistance to the shoulders of the bougie indicates the end of the stricture nearest the bladder. Then making a slight bend in the shaft at the meatus, the bougie is withdrawn, and as it leaves the stricture the sense of resistance is lost. Another bend in the shaft at the meatus is made. The length of stricture is indicated by the distance between the two "bends," and the distance the stricture is from the meatus also indicated. Then by means of a long urethral syringe a 4 per cent. solution of cocaine is injected and kept there for a few minutes. A Wyeth's modification of this urethrotome is used, and the length of the stricture and its exact location being known, the stricture is divided from behind forward.

In over a dozen cases which I have seen done in this way the patients were entirely unconscious of any pain during the operation, and some of them did not know their strictures had been divided until told so after leaving the table. Dilatation is kept up by the daily passage of sounds for some time, and patients instructed to have a sound passed at occasional intervals for a long period.

Cocaine is used in operations for fistula in ano, hemorrhoids, abscesses, felons, and all such minor operations.

Iodide of potassium is given in large doses in cases of syphilis—particularly in cerebral syphilis. Dr. W. A. Hammond, of the *Post-Graduate*, gave the following as his method of administering this drug in a case of cerebral syphilis where the pain was excessive and continuous. Commence with 25 gtt. of a saturated solution equivalent to 25 grains, t. i. d. in water, and on a full stomach. He increases the dose by three drops a day until an effect is produced, going as high as 200 gtt. t. i. d. if necessary. As the dose is increased, so increase the amount of water, using, say with 200 grains a pint and a half of water, and sipping it. If no effect is produced by a 200 grain dose, stop, as the probability is that the pot. iodid. will have no effect. If, however, 200 grains does produce some effect, go, if necessary, to as much as ℥j doses three times a day. Such large doses would be necessary only in very intractable cases. But ℥j and ℥iss doses are frequently prescribed and the patients appear to grow fat under the influence of the drug, nor are symptoms of iodism usually produced.

CANUCK.

Selected Articles.

TREATMENT OF TYPHOID FEVER IN THE PHILADELPHIA HOSPITALS.

PENNSYLVANIA HOSPITAL.

Dr. Da Costa does not accept any specific plan of treatment, although he generally administers the mineral acids; of these he most often prescribes nitromuriatic acid, twenty drops of the dilute acid every fourth hour. He does not interfere with the action of the bowels, unless the discharges exceed three, when he is most apt to order opium, in the shape of suppository.

He insists upon the patient being fed with liquid food every two honrs during the day-time,

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but not quite so often at night. He generally begins with stimulants in the second week of the disease, taking as his guide the state of the first sound of the heart. Rarely, however, does he give more than from eight to ten ounces of whiskey in twenty-four hours.

The patient is sponged with cool water twice daily, oftener if the temperature exceed 103°. Under these circumstances, too, an occasional decided dose of quinine, or antipyrine is resorted to, particularly if the high temperature be in the morning or show signs of persistency. He is an advocate of being very watchful for complications, and for their early treatment. Late in the fever and during convalescence he generally directs quinine.

PHILADELPHIA HOSPITAL.

Dr. Tyson's treatment of typhoid fever is mainly a symptomatic one. Placing the patient upon a milk diet from the outset, and continuing it until convalescence is established, symptoms are treated as they arise. Diarrhea is preferably controlled by nitrate of silver and the extract of opium, one-quarter grain of each three or four times a day. In more obstinate cases of diarrhea where this treatment fails, although seldom necessary, the more powerful astringent, acetate of lead, and more rarely tannin, is substituted for the nitrate of silver. Abdominal pain and tenderness are treated with poultices in addition to opium.

High temperature (104° to 105°) is combated by sponging the body. Persistent temperature above 105° is treated by wrapping the trunk with cloths wrung out in iced water, which are renewed every hour or half hour, and even oftener if necessary, the temperature under these circumstauces being taken hourly. Quinine is given in almost every case, not as an antipyretic, but as a tonic and stimulant, in doses of from six to sixteen grains daily. The stage of dry tongue is treated with turpentine in doses of ten drops every three hours.

Alcoholic stimulants are used in almost every case as required: moderately in mild cases, and in full doses in severe cases, frequently half an ounce every two hours. Sometimes larger doses are given. *Very high temperatures are regarded as demanding the fullest stimulation.* Dr. Tyson has used largely the modern antipyretics, thallin, antipyrin, and antifebrin, but considers them inferior to the iced cloths Of these antipyretics, however, he prefers antifebrin as less alarming in its effects, and equally efficient with the others in reducing temperature.

Dr. E. T. Bruen conducts his treatment without reference to the administration of specifics. During the first few days, especially in the fall of the year, when malarial influences prevail, it is customary to give for one or two days full doses of quinine for diagnostic purposes. If the continued nature of the fever is demonstrated, an expectant plan of treatment is inaugurated, which in mild cases is continued throughout the course of the disease till its termination.

If the temeprature exceeds 104°, sponging with cool or cold water is the means usually adopted. The sponging must be repeated every few hours. Sometimes cold water in rubber bags is applied to the back of the head and abdomen. The cold bath is reserved for those exceptional cases in which the high temperature seems to be influencing the nervous centres. The cold water bath he believes can be employed in the early stages of the fever with more safety than later on, since the vasomotor centres are much more responsive. and dangerous congestions of the viscera are avoided. The administration of antipyretics, such as antipyrin or antifebrin, so useful in the zymotic fevers of childhood or in the hectic of consumption, is to be avoided in typhoid fever for fear of disturbing the activity of the stomach. When the typhoid state is marked, associated with high temperature, the occasional use of antifebrin, in five-grain doses, is desirable and preferable to the cold bath. But persistent systematic sponging of the surface of the body in the usual order is the safest and best means in his hands of reducing temperature in typhoid fever. Quinine is employed in tonic doses, but not as an antipyretic.

Great stress is laid upon the administration of nourishment. From four to six ounces of milk should be given every two hours for eighteen hours out of the twenty-four. An interval of five hours once in the twenty-four should be secured to foster the digestive powers. Care should be taken to prevent the coagulation of the casein by dilution with Apollinaris or lime water; one or two raw eggs may be administered every other day. This method of diet is relied upon till convalescence is inaugurated, when the beef broths, prepared with some cereal, are allowed. The importance of delaying the use of meats until the temperature has been quite normal for more than a week, cannot be overestimated, and the first solid diet permitted to convalescents is farinaceous in character.

When diarrhea manifests itself, nitrate of silver in $\frac{1}{6}$th grain doses with $\frac{1}{24}$th of ext. opium is given every four hours, with opium suppositories, if necessary, in addition. In the majority of cases this is sufficient; but acetate of lead is resorted to in case of failure. Turpentine in emulsion (with muriatic acid in cases in which silver is not used) is always employed as soon as the typhoid state begins. The general stimulative properties of turpentine, aside from its local effects, render it invaluable in a majority of cases. Constipation of the bowels must be avoided, and every other day at least the bowels should be moved. Enemata, carefully given, seem to him the best mode of securing the desired end.

Internal congestions are antagonized by chang-

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ing the position of the patient, by turpentine stupes, and by cupping the chest when the lungs are the organs involved. A cotton jacket neatly made and applied, is very useful under these circumstances. Hemorrhages from the bowels are treated with opium and acetate of lead. In order to stimulate the circulation, whiskey is given early in the history of those cases in which high temperature marks the reception of a full supply of the typhoid poison, and the advent of the initial symptoms of the typhoid state are carefully looked for even in those patients in whom the mild character of the symptoms does not seem to call for stimulation. Those patients who have been habitual free consumers of alcohol require the largest amounts of this drug during typhoid fever. It is important, whenever practicable, to suspend the medicine, as well as the food, for one five-hour interval in the twenty-four in order to avoid overtaxing the stomach.

EPISCOPAL HOSPITAL.

Dr. Frederick P. Henry, in treating the cases in his wards, seeks to control diarrhea and allay its attendant peristalsis; to subdue nervous excitement, and to keep the temperature within moderate bounds. To accomplish these ends, the nutrition, stimulation, and medication of the patient receive the most careful attention. While the fever lasts, the diet is altogether liquid, and consists of milk with lime water, and animal broths. In giving these substances he endeavors to proportion their amount to the patient's digestive powers, for, to quote the language of Collie, without fully accepting it, "pints of milk and eggs in the stomach or bowels undigested are about as useful there as a cannon ball." When convalescence begins and farinaceous foods are first administered, a slight rise of temperature is the rule. This does not contra-indicate their continued employment, but may be regarded as physiological.

Stimulants are not given as a matter of routine, but only *pro re nata*. It is seldom that more than six ounces of whiskey are given *per diem*, and a certain number of mild cases receive no alcohol whatever. When diarrhea is obstinate, port wine is substituted for whiskey. Heroic measures have never been in vogue at this hospital, and, therefore, an attitude of "masterly inactivity" was preserved during the period of the cold bath craze. A more gradual, and, therefore, a more physiological effect, certainly one more soothing to the nervous system, is obtained by repeated sponging with tepid water. The latter method may be compared to a hint; the former to a denial, and in dealing with men's bodies as with their minds, suggestion, so to speak, is better than contradiction.

Some ten years ago, quinine was given in large amount—gr. xv to xx in the course of an hour—for its antipyretic effect, but this method was soon abandoned, and for several years the doses of this drug have not exceeded gr. xij *per diem*. To this extent it has been, until quite recently, administered as a matter of routine. Antipyrin and antifebrin have been thoroughly tested, and the opinion with reference to them is that they should be used with caution and reserved for emergencies of hyperpyrexia. The rapid descent of temperature produced by these remarkable agents has been, in rare instances, attended with a somewhat alarming condition of collapse. Fifteen grains of antipyrin given in three doses in the course of a half hour are, as a rule, sufficient to produce a decided effect, and Dr. Henry possesses a temperature chart, which shows that, on several occasions, five grains of antifebrin have caused a defervescence of from 4.5° to 5° F. In another chart a fall of nearly 6° (from 103.6° to 98°) was affected by the same dose. A decided impression upon the temperature has often been made by doses of 2.5 grains.

The benefits to be derived from turpentine are problematical, which is not to be wondered at, when it is recalled that the gastric mucosa is always in a hyperemic or catarrhal condition, and has been more than once observed to be the seat of the specific typhoid deposit and ulceration. Accordingly this drug is but little used. Opium suppositories are mainly relied on to check excessive diarrhea and allay peristalsis, and, when they prove insufficient, astringents, such as acetate of lead and gallic acid, are given *per os*; a moderate diarrhea is never interfered with. By moderate, as here employed, is understood from three to six gruel or mush-like evacuations in the twenty-four hours. The same drugs that are used to control diarrhea are, with the addition of ergot administered in case of intestinal hemorrhage. When tympany is great, powdered charcoal and enemata of tepid water have been found of decided benefit.

The treatment outlined above may be described as symptomatic and expectant. It is, in no sense of the word, specific. The latter adjective may be applied, with propriety, to measures which have as their object, the shortening of the course of the disease, or the mitigation of its severity, and which are addressed to the specific intestinal lesions. Such measures have not been neglected in the Episcopal Hospital. Nitrate of silver, carbolic acid and iodine, and Labarraque's solution have been systematically tested, but Dr. Henry believes them to be, one and all, inferior to thymol. He has given his experience with this drug in a recent contribution to the *Medical News* (Sept. 3, 1887), to which the reader is referred, and, since that time, he has received confirmation of his statements from several sources. "The favorable effect of the drug was evinced by a steady descent of the temperature, by a gradual diminution in the daily number of stools, by the absence of mental excitement, and, most conspicuously, by

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the clean, moist tongue presented in every instance. . . . . I have always prescribed the thymol in pill, of which the best excipient is medicinal soap, and, so far, have not given more than thirty grains in twenty-four hours, two 2½ grain pills every four hours. This is a small dose, but I have seen no reason to increase it. This may be done, however, with perfect safety, and, perhaps, with still better results."

Quite as good results have been claimed for naphthalin, but, so far as he knows, it has not been used in the Episcopal Hospital, and, other things being equal, the comparative innocuousness of thymol should entitle it to the preference.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

Dr. Pepper holds that there is no disease more influenced than this in its later course and result by the management of its initial period. Whenever there is the least suspicion that typhoid fever is beginning the patient should have the benefit of the doubt, and from that moment should be treated with strict thoroughness. Sometimes this will induce abortion of the case, for it is one of the diseases which is, so to speak, self-perpetuating, owing to the continual development of the materies morbi in the intestinal canal so long as the contents afford a suitable culture medium.

This condition is much affected by the diet, and by agents which influence the lesions of the intestinal glands. It is well to repeat that from the earliest moment we must insist on absolute rest. Much harm is done by postponing for two or three days the necessary confinement to bed. So should an absolute restriction of diet be imposed at once. It seems to Dr. Pepper that the intestinal canal is kept in the best condition when from the earliest hour the diet has consisted exclusively of milk, light gruels or broths, and pure water. Milk may seem to disagree, but it will then usually be found that it has been given in too large amounts or at too short intervals or that to enable it to be digested it must be diluted or peptonized. For patients with typhoid fever must be fed, not on theory, but according to the observed effects of the food given. Tympany and diarrhea are often the result of excessive or improper feeding, although more commonly they may be caused by the enfeebled state of the muscles of the intestinal and abdominal walls, and by the lesions of the mucous membrane. Under the influence of the unqualified dictum that fevers should be fed, a dictum much more universally applicable to typhus than to typhoid fever, many cases of the latter are injured by injudicious feeding. Not only may tympany and diarrhea be promoted thereby, but the accumulation of imperfectly digested organic matter in the bowels may favor the multiplication of the specific materies morbi, and also the development of ptomaines. This question of feeding is, therefore, the fundamental one in typhoid fever, and should be treated with caution and minute attention in each case.

Next in importance seems the administration of some remedy directed to the invariably present lesion of the intestinal glands. Drugs which exert a sedative astringent effect, which do not hurt the stomach, and which are antiseptic either directly or by their action on albuminoids, would seem to be indicated; and Dr. Pepper thinks that some such remedy should form a part of our treatment of every case of typhoid fever, from the earliest hour when we suspect the nature of the case. Creasote, carbolic acid, iodoform, mineral acids, especially muriatic and sulphurous, and nitrate of silver, suggest themselves. In the great majority of cases he much prefers nitrate of silver, and since he revived the use of the remedy in typhoid fever it has been employed so extensively and with such admirable results as to have established its value. It is given from the outset in doses of gr. ⅛ to gr. ¼ thrice daily, combined with small amounts of opium, or belladonna, or nux vomica, according to special indications. He has come to believe that the appearance of dangerous symptoms is rendered less frequent, and the entire course of the disease rendered more favorable by the early use of this remedy in conjunction with an early insistance on absolute rest and carefully adjusted feeding.

When the typhoid symptoms become pronounced, especially the dry, brown, tremulous tongue with weak heart, and paretic tympany, he substitutes, or adds, turpentine. When the tongue remains moist but is flabby and white coated, the bowels torpid, and the secretions scanty, the mineral acids with strychnia in solution seem indicated.

Space forbids mention of the obvious indications in certain cases for other remedies of this group. Alcohol is required sooner or later in most cases of typhoid fever, yet he never prescribes it except when definite indications call for it. These indications are sought in the character of the cardiac action, of the nervous symptoms, of the digestion, and of the pyrexia. By withholding it until called for, and then giving it in small doses, and by cautiously increasing the dose and strength of the preparation used, we secure all possible benefit, and avoid the harm which follows here, as elsewhere, its excessive or untimely use.

Nearly always also there arises in the course of typhoid fever the necessity of controlling the pyrexia. But this necessity will be less frequent in proportion as the elements of treatment already insisted on are early and thoroughly attended to. So long as the temperature remains reasonably low, 102½° to 103°, and no nervous or cardiac symptoms appear attributable to the mere pyrexia, we need pay no special attention to it. But at any time, even during the earliest days, the fever may reach a point requiring interference. If

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quinine has been given in moderate doses, as is often the case, one or two full doses are now used, but recent experience had led to a preference for antipyrin when only an occasional antipyretic effect is required, or to the external use of cold water by sponging or affusion when the tendency to hyperpyrexia shows more obstinacy.

Dr. Osler believes a plan of armed expectancy to be, in the present state of our knowledge, the most rational. The majority of the cases require little or no medicinal treatment. The routine of a restricted diet under the watchful care of an intelligent nurse, meets the *indicatio morbi*. No initial purge is given, as the cases are never brought to hospital very early, and constipation is not dreaded. An acid mixture is sometimes ordered, or dilute hydrochloric acid is added to the water, which is given freely. As it is possible that the defective elimination of the products of regressive tissues changes may be, in part at least, the cause of the so-called typhoid symptoms, every effort is made to keep active the skin and kidneys. Repeated spongings and an abundance of fresh cool water to drink, answer the purpose.

A milk diet is ordered—about three pints in the twenty-four hours. Very exceptionally it has to be artificially prepared. An examination of the stools will often indicate if too much milk is taken, or if it is not digested. Warm milk is less apt to produce flatulence. Broths and beaten-up eggs are allowed in mild cases.

When the fever reaches 103°-104°, the spongings are more frequently used. If it rises higher —104°-105°—the wet pack is ordered, or a dose of antipyrin or antifebrin, either of which acts promptly. The cold-water treatment is specially indicated in those cases with profoundly ataxic symptoms, though all the features in this state are not due to the pyrexia. For diarrhea, when excessive, aromatic sulphuric acid, bismuth, or naphthalin is ordered. For tympanites, turpentine stupes, turpentine internally, creasote, or naphthalin. Constipation is disregarded unless it persists longer than seven or eight days, when a saline purge or an enema is ordered. The severe headache of the early stage may demand leeches. Bromide or chloral will usually overcome the troublesome insomnia of certain cases.

When there are indications of heart failure, alcohol is given, and, if necessary, in large doses. Camphor, strychnine, and ergot supplement, but cannot replace, alcohol in this condition. Should hemorrhage occur, opium is given and an ice-bag placed on the abdomen.

A return to ordinary diet is permitted ten or twelve days after convalescence is established.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

Dr. J. C. Wilson treats his cases of enteric fever by the systematic use of laxative doses of calomel during the first ten days, and by carbolized iodine, as originally suggested by Professor Bartholow, throughout the course of the disease. The most careful attention is given to the details of nursing, dietetics, and hygiene, and symptoms are treated as they become prominent. Due regard being had to the peculiarities of individual cases, the general plan is as follows:

Upon the evening of admission the patient receives seven and a half to ten grains of calomel in combination with ten grains of sodium bicarbonate, at a single dose. If the case be still in the first week, which is not usual with hospital patients, this dose is repeated every second night until its third administration; if already in the second week, a single dose only is given. After the tenth day it is given cautiously or omitted altogether. If there be constipation, the first dose of calomel is followed by two or three large stools mostly of the consistency of mush, the later doses by stools decidedly liquid. Diarrhea is not regarded as a contra-indication. On the contrary, it almost always becomes less troublesome after the action of the mercurial. During the subsequent course of the disease, constipation is not allowed to continue at any time beyond the third day; but is relieved as a rule by an eight ounce enema of warm, thin gruel, slowly injected, or exceptionally by a five, or seven and a half grain dose of calomel; the choice being influenced by the character and prominence of abdominal symptoms. Under this plan of treatment diarrhea is not commonly excessive. When necessary, it is treated by one grain suppositories of the aqueous extract of opium.

From the beginning the patient receives at intervals of two hours during the day, and three hours during the night, and immediately after the administration of nourishment, two or three drops of a mixture of two parts tincture of iodine and one part pure liquid carbolic acid. This dose is administered in an ounce of iced water. Unless the temperature exceeds 104° F., the fever calls for no special treatment, beyond cold sponging. which is practised in every case at least twice in the twenty-four hours. A higher temperature receives prompt attention. After trial of the list of new antipyretics, the choice is antipyrin. It is used in single doses of ten to fifteen grains, and repeated when the temperature again rises beyond 104° F. If this remedy fails of its effect, large compresses of several thicknesses extending across the chest and abdomen from the neck to the pubes, and freely wet with iced water, are used. The gradually cooled bath is held in reserve.

Alcohol has no necessary part in the routine treatment of enteric fever. Many cases do not require it; some are unquestionably benefitted by it; while to a considerable proportion it is an absolute necessity. Dr. Wilson believes that the

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employment of alcohol in the treatment of fevers should be regarded not as a dietetic but invariably as a medicinal measure.

Space does not permit the discussion of the treatment of complications, nor of the management of convalescence. If perforation occurs during or after the period of defervescence, namely, in the fourth week or later, laparotomy should be performed.—*Med. News.*

SOME LABORATORY NOTES ON PAPOID DIGESTION.

For some time it has been known that the stems, leaves and unripe fruit of a plant called *Carica papaya* contain a ferment capable of digesting proteids. This plant is found in the East and West Indies and in South America. The natives of many localities where this plant is indigenous make a practice of rolling their fresh meat in caraca leaves to make it tender and easier of digestion. From the juice of this plant Dr. Finkler, of Bonn University, has made an albuminous preparation containing the ferment, which is now attracting much attention under the name of Papoid.

Wurtz, however, was the first to isolate the ferment, to which he gave the name of *papain*, and ascribed to it certain definite and characteristic reactions. About 90 per cent. of commercial papoid is soluble in water; the residue consists chiefly of coagulated albumen. The solution contains globulin, but it is highly probable that the ferment is quite independent of this albuminoid, as the globulin may be precipitated, leaving in the solutian a large part, if not all, of the ferment. As papoid contains the ferment papain and also some albumen on which it may act, care must be taken to keep it dry. The unsatisfactory results obtained by some in its use are no doubt due to previous exposure of the sample to moisture. A solution of papoid will always give the peptone reaction on standing a few hours.

The greatest differences of opinion have been expressed by different experimenters as to the conditions most favorable to the activity of papoid. Albrecht *(Schmidt's Jhrbuch*, Bd. 190) states that papain digestion is hastened by the presence of hydrochloric acid. Wurtz, on the other hand shows that papain digestion is essentially a neutral one, which is most rapid and thorough at a temperature of about 40°. Rossbach has recorded a few experiments—at variance with most others—in which he claims that this ferment is not more active in a warm solution than in a cold one. As papain is a vegetable product, this seems highly probable, but the careful experiments of Dr. Sidney Martin fully prove that a moderate degree of heat increases the activity of this ferment just as it does that of any other. The fact remains, however, that papain has powerful digesting action at at ordinary temperatures—50°–70°F. Dr. Martin has published, at some length, a series of carefully made experiments on the nature and action of papain in the *Journal of Physiology*, Vols. V. and VI, and the results of the following experiments, where they run parallel with his, closely correspond with the results obtained by this author.

In each of the following experiments the digestion mixture consisted of 1 gramme of pure dry fibrin in powder, which was boiled in 20 cc. of water and allowed to stand for 12 hours to soften. To this was added 10 cc. of a 1 per cent. solution of the ferment to be used, and standard acid or alkali to required strength, making the whole mixture up to 50 cc. The digestions were carried on in an incubator kept at a constant temperature of 37-38°C., and at the end of a variable time the undissolved fibrin was filtered off on a small, tared filter, and after thorough washing was dried at 100° to constant weight. Thus the undigested fibrin could be weighed in the same condition as before it was submitted to the action of the ferment, and any experimental error caused by the presence of a variable quantity of moisture was eliminated. It is not easy to understand how relative digestion can be accurately determined by those who experiment with proteids of such indefinite and variable composition as "hard-boiled egg," "fresh meat," and "freshly coagulated albumen"; yet many of the published results on papoid digestion have been based on experiments in which their substances were weighed before and after the action of the ferment.

EXPERIMENT I.—Digestion mixture consisted of 1 gramme fibrin, 10 cc. of a 1 per cent. solution of papoid or pepsin in a neutral medium; time 20 hours; temperature 37-38°C. Experiment done in duplicate:

	Undigested fibrin.	*Per cent. digested.*
Papoid (*a*)	.187 grm.	81.3 per cent.
Papoid (*b*)	.13 "	87.0 "
Pepsin (*a*)	.903 "	9.7 "
Pepsin (*b*)	.883 "	11.7 "

EXPERIMENT II.—Conditions the same as in I, but in an acid medium of .3 per cent. hydrochloric acid; time 20 hours; temperature 37-38°C.:

	Undigested fibrin.	*Per cent. digested.*
Papoid (*a*)	.972 grm.	2.8 per cent.
Papoid (*b*)	.923 "	7.7 "
Pepsin (*a*)	.08 "	92.0 "
Pepsin (*b*)	.04 "	96 0 "

EXPERIMENT III.—Pepsin in .3 per cent. hydrochloric acid and papoid in a neutral medium; other conditions as before; time 15 hours:

	Undigested fibrin.	*Per cent. digested.*
Papoid (*a*)	.378 grm.	62.2 per cent.
Papoid (*b*)	.322 "	67 8 "
Pepsin (*a*)	.232 "	76 8 "
Pepsin (*b*)	.281 "	71.9 "

EXPERIMENT IV.—Papoid and pancreatin in 1 per

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cent. solution of sodium carbonate; other conditions as before; time 18 hours:

	Undigested fibrin.	*Per cent. digested.*
Papoid	.37 grm	63 per cent.
Pancreatin	.02 "	98 "

EXPERIMENT V.—Papoid in .2 per cent. solution of sodium carbonate and pancreatin in a 1 per cent. solution; other conditions as in Experiment I; time 20 hours:

	Undigested fibrin.	*Per cent. digested.*
Papoid	.131 grm.	86.9 per cent.
Pancreatine	.122 "	87.8 "

EXPERIMENT VI.—In order to determine the conditions under which papoid is most active, its action on 1 grm. of fibrin in the presence of different quantities of alkali was estimated with the following result; time 18 hours:

	Undigested fibrin.	*Per cent. digested.*
Papoid + 1 per ct. Na2 Co3	.44 grm.	56 per cent.
+ 5 " "	.28 "	72 "
+ 2 " "	.12 "	88 "
in neutral solution	.18 "	82 "
In 3 p.c. hydrochloric acid	.96 "	4 "

EXPERIMENT VII.—The action of papoid in neutral solution on diptheritic membrane compared with that of pepsin:

(*a*) Papoid digested completely .3 grm. of diphtheritic membrane in 20 hours.

Pepsin had only partially dissolved the same weight of membrane at the end of 36 hours.

(*b*) Papoid dissolved completely 5 grm. of membrane in 23-24 hours.

In these experiments a 5 per cent. solution of papoid or of pepsin was added to the undivided membrane, and the whole kept wet during the time specified. The membrane was reduced to a clear fluid jelly by papoid, but only partially attacked by the pepsin under the same conditions.

EXPERIMENT VIII.—Does acid destroy the proteolytic action of papoid as it does that of trypsin?

To ascertain this, .2 grm. of papoid was added to 1 gramme of fibrin in a .3 per cent. solution of hydrochloric acid in duplicate. Both mixtures were made up to 50 cc. and left in the incubator for three hours. At that time one mixture was estimated and the other made faintly alkaline with sodium carbonate and left in the incubator for 13 hours longer The acid mixture showed no digestion,—no reaction indicating peptones could be obtained. At the end of 13 hours the other mixture gave a residue of .23 grm, showing that 77 per cent. had been digested. The proteolytic ferment of papoid is therefore not destroyed by being kept in an acid medium for three hours at blood heat; its action is only suspended. The conclusions to be drawn from these experiments are obvious. Papoid evidently contains a powerful preteolytic ferment which resembles trypsin both in the conditions under which it is most active and and in its mode of digestion. It corrodes the fibrin, dissolving each piece away from the surface to the centre, does not gelatinize the whole mass like pepsin. Moreover, one can readily obtain leucin in the products of digestion. Tyrpsin could not be obtained by the writer, but its presence was determined by Dr. Martin, who worked with larger digestion mixtures. Papoid, as shown in Experiment II, is quite inactive in small quantities in an acid medium of .3 per cent. hydrochloric acid. A certain amount—3 to 7 per cent. of the fibrin—was dissolved by it, but no true digestion occurred, as peptones in any quantity were absent. The results of Experiment VIII, however, show that although it is inactive in acid its functions are only suspended, the ferment is not killed. This is interesting, in view of the frequent use of papoid for treatment of dyspepsia. If the stomach be normally acid, its activity will probably be suspended entirely; if, however, the acidity be very slight, papoid will probably act Its greatest action, however, takes place in the small intestines, where the medium is alkaline or neutral. The ferment is most energetic in a faintly alkaline medium, about .2 per cent. of sodium carbonate.

Comparing its digestive power with that of pepsin and pancreatin, Experiment I shows that in a neutral medium its activity is far greater than pepsin, but it is inferior to it in an acid medium. Under the conditions that have been found to be most favorable to their respective functional activity, papoid is but little, if at all, inferior to either pepsin or pancreatin.

Papoid is especially useful for the removal of diphtheritic membrane. The conditions present in the pharynx are just those which retard the action of pepsin and pancreatin, but do not influence papoid. The medium in which it is required to act is practically a neutral one and the temperature low, there is present, besides, a large excess of the products of digestion which does not affect papoid—indeed it is most energetic in a concentrated medium. Moreover, papoid has been shown clinically to lessen very greatly the disagreeable fetor of the disease. Painting on a 5 per cent. solution, freshly made, every two or three hours has been found to give the best results; the fetor disappears in a few hours and the membrane in from 12-18 hours becomes thin and glairy. It would seem to be especially indicated in those forms of dyspepsia in which peptic digestion is greatly impaired and where the secretion of gastric juice is very weak. Papoid, therefore, promises to be a powerful auxiliary in combating those great diseases—diphtheria and dyspepsia.—R F. Ruttan, M.D., in *Can. Med. and Surg. Jour.*

DR. LAUDER BRUNTON finds that small doses of strychnia are very useful in neurasthenic insomnia.

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MEDICAL NOTES.

Dr. Parvin considers iodine one of the best *uterine hemostatics* and antiseptics.

Professor Parvin uses this efficient formula for *carcinoma*:—

℞.—Iodinii, ... ʒj.
Brominii, ... ʒij.
Acid. carbolic, ... ʒiv.
Alcohol, ... fʒviij. M.
Sig.—Apply, and then introduce a saturated solution of bicarbonate of sodium.

At a recent clinic, Prof. Holland recommended the following as an efficient *depilatory stick*:—

℞.—Ceræ flavæ, ... ʒij.
Shellac, ... ℥ss.
Resin, ... ʒiv.
Picis Burgund., ... ʒx.
Gum damar., ... ʒiss. M.
Heat; before cold, roll into sticks.

Statistics show that 30 per cent. of cases of *wounds of the abdomen* recover under antiseptic treatment when the cavity is opened for diagnostic purposes and treatment. The mortality of maternity wards in hospitals has been reduced from 15 per cent. to ½ per cent. under antiseptic precautions.

The following used through the nostrils has a high repute for *asthma*:—

℞.—Menthol, ... ʒj.
Cerat., ... ʒij.
Ol. amyg. dulc., ... ʒj.
Zinci oxidi, ... ʒj.
Acidi carbolici, ... ʒss. M.
Sig.—Apply every few hours.

Dr. Horwitz, chief assistant to the surgical department of Jefferson Hospital, frequently uses the following as a favorite prescription for *injection in gonorrhea*:—

℞.—Plumbi acetatis, ... ʒss.
Zinci sulphat, ... gr. xvj.
Extract. krameriæ fluid., . . fʒij.
Tinct. opii, ... fʒss.
Aquæ, q. s. ad., ... fʒvj. M.
Sig.—Give as injection.

The source of *albumen in the urine* of some pregnant women, says Professor Parvin, is probably a discharge, as leucorrhea or cystitis, being washed out of the vagina when urinating; therefore, it is much better to use a catheter, or have the vagina thoroughly washed out before collecting the urine.

Professor Bartholow considers the most effective treatment for *chronic neuritis* is galvanism and morphine hypodermatically. Place the positive pole to the affected part and negative to the periphery. Repeat this treatment daily for a few minutes at a time. For very obstinate cases, use flying blisters locally, and internally iodides of potassium and colchicum.

The great secret of applying *plaster-of-Paris bandages* is to have all the sizing out of the material used, so when a piece of muslin to be used is thrown upon water it sinks readily; if it does this it will readily absorb water and plaster and will set quickly; a little salt added to the water is an advantage; a roller made of lint is better than cotton to be applied next to the part. (Dr. Allis.)

Prof Parvin says the term *placental souffle* is still used improperly by many physicians instead of uterine souffle, the correct desigation; that the placenta is not concerned in the sound is proved by the fact that the souffle is heard some days after confinement, and has been heard in uterine fibroids. The sound is synchronous with the pulse of the mother, and of very little value as a sign of pregnancy.

Professor Parvin advises that *prolapse of the vagina* be treated by astringent injections, having the bladder frequently emptied, especially if a cystocele is associated with the prolapse, which is frequently the case, and apply a suitable elastic ring pessary; if the pessary is uncomfortable or cannot be worn, a large tampon of absorbent wool, dipped in a solution of tannin and glycerin, introduced in the morning and removed at night, may suffice.

For a case of *simple goitre* of six months' standing, Prof. Da Costa prescribed liq. iodinii comp., gtt. iij, three times a day, gradually increased to ten or fifteen drops three times a day. Locally:

℞.—Iodinii, ... ℥ss.
Lanoline, ... ʒvj.
Ung. zinc. oxid., ... ʒij.
Ol. bergamot, ... gtt.v. M.
Sig.—Rub over gland twice a day.

In exophthalmic goitre a murmur is heard over thyroid gland; in simple goitre murmur is absent.

Dr. Allis has devised a very ingenious drainage tube for *draining the thoracic cavity*. It is made by taking a piece of ordinary rubber tubing of proper size, quartering lengthwise about one inch, passing the divided portion through a piece of adhesive plaster previously perforated the size of tubing, and turning the cut euds down and securing them by another similar piece of plaster, the two adhesive surfaces approximating. When the tubing is inserted it is even with the surface of the body and kept there by the plaster, not inconveniencing the patient in any degree, who can move without danger of displacement. This simple contrivance is easily made, and has been used with satisfaction in the wards of Jefferson College Hospital.—*Col. and Clin. Rec.*

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ACTION OF ANTIPYRINE.

TINEA DECALVANS A NERVOUS DISEASE.

At the meeting of the Academy of Medicine, last week, Dr. A. Robin, the newly elected member, read a paper on the action of antipyrine on nutrition. The paper contained a continuation of the researches he had undertaken in 1885 and in 1886. The deductions from these researches may be summarized as follows: 1. Antipyrine first acts on the nervous system, the excitability of which it moderates, not in a purely dynamical manner, but in acting on its elementary nutrition. 2. It diminishes the organic disintegration, and still more lowers the organic oxidations, whence the production of an excess relative to the lithic acid and of the nitrogeneous extractive materials, which are less soluble, and consequently with more difficulty eliminated than urea. It is probable that this influence on the general nutrition is the immediate consequence of the effects of antipyrine on the nervous system, as almost all depressing medicaments of the nervous activity act in nearly the same manner. 3. Antipyrine possesses also an antiseptic property very marked, even at a feeble dose, and which appears to be as manifest in the organism, and without any injury to it, as in the experiments of the laboratory. The author further observes that these three propositions indicate what should be the applications of antipyrine. It acts against pain, against painful cardiopathies and agina pectoris. As regards its administration in the treatment of fevers, Dr. Robin considers it very much compromised, as its beneficial action in these cases is very doubtful. Thus, for instance, while endeavoring to diminish disintegration, we must do everything to favor the oxidation of the disintegrated products, because the oxidations give birth to soluble residues. As antipyrine does not fulfil this indication, it should not be employed in this or any other fever. From these considerations, and from its special action on the element pain, Dr. Robin suggests that the substance now known by the name of antipyrine would be more correctly termed "analgesine," or "neurasthenine." Professor Verneuil observed that he had been rather successful in the treatment of surgical septicemic fevers by antipyrine, which Dr. Robin, however, considers a corroboration of his conclusions respecting the therapeutic properties of this drug.

At the same meeting of the Academy, Dr. Ollivier read a paper in which he endeavored to prove that "pelade," or tinea decalvans, was a non-contagious and non-parasitic malady, and that its origin was purely nervous. He therefore considered it inexpedient, and even cruel, to prevent pupils affected with the malady from attending their schools, and sometimes for a lengthened periods, much to the detriment of their studies, and perhaps of their future career, particularly as even dermatologists are divided among themselves as to whether the matter is contagious or not. Professor Hardy, the well known dermatologist, took up the subject, and stated that although he never discovered a parasitic peculiar to the malady in question, yet from his vast experience he had every reason to believe that it was contagious, and this hypothesis was confirmed by the fact that since measures have been taken to exclude children so affected from schools the cases have become much less frequent in them. Dr. Cornil, the distinguished histologist, does not believe in the contagiousness of tinea decalvans in the majority of cases, for no one as yet has discovered either a mushroom or a micro-organism which may be looked upon as the peculiar agent of the disease. To this Dr. Hardy retorted that it does not follow that because no micro-organism was discovered in tinea decalvans it can be affirmed that this affection was not contagious, for although the microbe of measles and of scarlatina has not been seen, no one will contest the contagious nature of these maladies.—*Paris correspondent Med. Rec.*

QUACK ADVERTISEMENTS IN RELIGIOUS NEWS PAPERS.—From time to time medical men and medical journals have protested against the prostitution of the columns of religious newspapers to the use of advertisers of quack nostrums. This protest does not apply to temperately worded representations of what seems to have been accomplished by, or what may reasonably be expected of, a remedy or device for the cure of disease or injury. But it does apply to advertisements couched in language which bears the stamp of falsehood on its face, or which is of such a character as to arouse suspicion in the mind of an intelligent man, uninfluenced by a money consideration.

The editors of most religious journals are, as a rule, men of such intelligence that they will hardly attribute to trade-jealousy alone the objection which medical men have to the recommendation of "sure cures" for baldness, fits, rupture, consumption, and so on, to persons who are apt to regard their religious teachers as safe guides in matters of health and disease; and who are not sufficiently familiar with the subtleties of the newspapers business to distinguish between the responsibilities of the editor and those of the publisher. As a fact most readers of periodicals have the impression that the advertisements they contain are endorsed by the editor. Advertisers rely upon this fact; and we cannot understand the casuistry which satisfies the conscience of a man who edits a periodical, ostensibly devoted to religion, which replenishes its coffers with the price of palpable falsehoods.

If it were true that a religious paper could not

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be financially successful without taking money for the advertisement of worthless or delusive remedies, a course might be suggested worthy of the main object of these papers. But it is not true; for there are a few happy illustrations of the fact that, even in a religious newspaper, "honesty is the best bolicy."

We call the attention of our large circle of readers to this matter, in the hope that they will use their influence to put an end to what we regard as a serious blemish in religious newspapers, and one which injures the good reputation which they ought to enjoy. And we call the attention of those religious newspapers to which our remarks may apply to this matter, in the hope that we shall not have to recur to it in a more explicit manner. —*Med. and Surg. Reporter.*

REVELATIONS OF PREHISTORIC TARTAR.—Some curious evidences of the diet of our prehistoric ancestors of the "stone age" were recently brought before the Odontological Society of Great Britain by Mr. Charles White. Whilst examining some dolicho-cephalic skulls found in a "long" barrow near Heytesbury, in Wiltshire, Mr. White was struck with the thought that as particles of food become imprisoned in the dental tartar, sealed up in a calcareous cement, and can be made to reveal themselves on solution of this material, it would be an interesting revelation if the tartar found on these teeth of the stone age could be made to give up its secrets in a similar manner. He accordingly carefully decalcified some small portions with dilute hydrochloric acid and examined the sediment under the microscope. The sediment consisted of small, drab-colored masses, apparently composed chiefly of altered and disintegrated epithelias scales mixed with the contents of starch cells. Throughout these masses were scattered grains of sand in great abundance; polarized light showed these to be of two kinds, some being composed of silex and others of quartz or granite. Their presence was to be accounted for by the method of grinding corn between two gritty stones practised in those times, and the grinding surfaces of the teeth were worn down in the most extraordinary manner from the same cause. Besides these, scattered through the sediment, Mr. White was able to identify portions of husks of corn, hairs from the outside of the husks, spiral vessels from vegetables, husks of starch, the point of a fish's tooth, a conglomeration of oval cells, probably of fruit, barblets of feathers, portions of wool, and some fragments of cartilage, together with some other organic remains which he failed to recognize. "Long" barrows are considered by archeologists to be older than the round barrows, and it is thought probable that they contain the relics of the earliest inhabitants of Britain of whom any sepulchral monuments exist. This opinion is based upon the fact that no weapons or instruments of metal of any kind have ever been found in them, though weapons of bone and stone are occassionally met with. The pottery, also, found in them is of the rudest kind, and quite devoid of ornament. The fact that vegetable tissue should be found in such a state as to be easily recognizable after the lapse of probably not less than three thousand years, is certainly remarkable; whilst the presence of fragments of wool and feathers would seem to indicate that these people were accustomed to eat their food in an uncooked condition.—*Brit. Med. Jour.*

SALT IN MILK FOR CHILDREN.—Dr. Jacobi says that the physiological effect of chloride of sodium is very important, no matter whether it is directly introduced through the mother's milk, or added as a condiment to cow's milk, or vegetable diet. Both of the latter contain more potassium than sodium, and neither ought ever to be given to the well or sick, without the addition of table salt. A portion of that which is introduced may be absorbed in solution; another part is, however, broken up into another sodium salt and hydrochloric acid. Thus it serves directly as an excitant to the secretion of the glands and facilitates digestion. Therefore during diseases in which the secretion of gastric juice is interfered with, or in the beginning of convalescence, when both the secreting faculties and the muscular power of the stomach wanting, and the necessity of resorting to nitrogenous food is apparent, an ample supply of salt ought to be furnished. The excess of acid which may get into the intestinal canal unites with the sodium of the bile in the duodenum, and assists in producing a second combination of chloride of sodium, which again is dissolved in the intestines and absorbed. Its action in the circulation is well understood; it enhances the vital processes, mainly by accelerating tissue-changes through the elimination of more urea and carbonic acid.

A very important fact is also this; that the addition of chloride of sodium prevents the solid coagulation of milk by either rennet or gastric-juice. The cow's milk ought never to be given without table salt, and the latter ought to be added to women's milk when it behaves like cow's milk in regard to solid curdling and consequent indigestibility.

Habitual constipation of children is also influenced beneficially, for two reasons: not only is the food made more digestible, but the secretions of the alimentary canal, both serous and glandular, are made more effective by its presence.—*Archives of Pediatrics.*

THE ETIOLOGY OF TYPHOID FEVER.—Dr. Quine's views on typhoid fever are summarized by the

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Philadelphia Medical Times as follows: 1. The exciting cause is a specific, poisonous, microscopical germ; and under no circumstances can typhoid fever originate from the influence of filth alone, unless that filth contains the specific germ. 2. The germ is practically immortal. Typhoid dejecta may be imprisoned in an old cesspool or unused sewer-pipe for half a century, and then, after a lapse of this period, when this cesspool or unused sewer-pipe is opened, the typhoid germ literally springs into existence with frightful malignancy, and a few whiffs from the accumulations in the cesspool will be sufficient to cause it. The germ does not die spontaneously; it can be killed. 3. The germ multiplies in the human body, and an inconceivably minute quantity of this germ introduced into the human system makes the individual susceptible to the disease. An individual having a dozen movements of the bowels a day, each dejection contains germs enough to impart it to a hundred or thousand individuals; so there is clear proof that the germ multiplies in the human body. 4. The specific germ of typhoid fever is eliminated by the bowels. A person may inhale the breath of a typhoid patient without danger of contracting the malady. He may lie on the same bed throughout the entire course of the disease without danger to himself, unless in some way the intestinal dejections or emanations have found their way into his own circulation. The poison is not contained in the urine, nor in the emanations from the surface of the body, but simply in the fæcal discharges. 5. The fresh germ itself is innocuous—non-poisonous. Some investigators in Germany have engaged in the unpleasantry of drinking down fresh typhoid discharges, and have demonstrated with absolute certainty that these fresh discharges are innocuous. 6. In order for the discharges to acquire activity or virulency, they must be exposed to atmospheric air; hence old typhoid putrid discharges undergo partial decomposition. 7. The poison of typhoid fever is almost invariably swallowed in drinking from impregnated water-supplies. It is sometimes swallowed in the food. In rare, exceptional cases, typhoid germs may be diffused through the atmosphere, and find their way into the human body through the lungs. 8. A patient may have the disease two or three times; one attack does not protect him from subsequent attacks.—*Med. Rec.*

SHALL THE LANGUAGE OF PRESCRIPTIONS BE SIMPLIFIED?—There is among medical practitioners an increasing disposition to substitute for the series of classical terms hitherto used in prescribing their simpler and more accurate equivalents in the vernacular. The reform is one which has our approval. In making this admission, however, it is necessary to define with some preciseness the extent of its application. For the purpose of present argument, a prescription may be conveniently regarded as consisting of a professional and a popular part, the former being concerned with a statement of drugs and their quantities, the latter with directions for their use. The first great requisite that should belong to such directions is, we take it, clearness. Their meaning must be plain beyond all chance of misunderstanding on the part of inexperienced dispensers, a result hardly to be expected if words, phrases, and abbreviations are clothed in a garb of studiously quaint antiquity. The advantage conferred by a common scientific language is in this connection, as a rule, wholly inoperative, since a translation of injunctions to the patient is not usually required, and, should it be needed in consequence of a change in the medical attendance, is not difficult to obtain. Doctor, chemist, nurse, and patient are here on common ground that has less to do with medicine than with attendance on the sick, and their simplest and surest means of communication is the native tongue. It is otherwise when we come to component parts and quantities of a prescribed mixture. These are the special concern of practitioners, and a clear and easy understanding among all such, of whatever country, with regard to the means of treatment, is of the first importance. Alike for this purpose and to allow of advisable brevity, the use of one common medium of expression is decidedly preferable to any other system. We are therefore of opinion that the best and most natural result of the reform in prescribing, which is now in progress, will be to leave the body of the prescription in its present convenient though antique form, and to insure the most accurate observance of instructions to the patient by expressing these in the language of every-day life.—*Lancet.*

THE EXAMINATION OF WATER.—Dr. Parkes, of London, after reviewing the various methods of examining water, concludes that chemical analysis, aided by microscopic examination, is sufficient in the great majority of cases to determine the amount of organic pollution of a water, and whether it is of recent date. In many cases the source of the pollution, whether from sewage or vegetable matters chiefly, can also be determined; but there is no possibility of ascertaining whether the water thus polluted is actually potent for evil or whether it may not be entirely harmless. Chemical analysis is powerless to deal with those cases of infinitesimal pollution of a pure water with infective material from the human body. Cultivation tests are equally powerless to cope with such cases. The only possible way of ascertaining the probable effects on the human system of drinking such water, is for the operator to perform the experiment on his own person—a course not likely to be pursued. The cultivation tests, of now practised, add very

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little to the results attainable by chemical analysis. Micro-biology must undergo further development before germ-cultivation methods can be expected to throw much light on water-pollutions. Lastly, the sanitary survey of the source of the water, or its mode of storage, should always be carried out whenever any doubt exists as to the freedom of the water from all possible sources of contamination.—*Practitioner.*

ON THE TREATMENT OF FELON WITHOUT INCISION.—Unless it is contra-indicated I generally begin the treatment with a mild cathartic, the following being that commonly employed :

℞ Ex. colocynth. comp.
Mass. hydrarg. . . . . āā gr. x
Pulv. ipecacuan. . . . . gr. ii

℔. Div. in pil. No. iv. SIG.—Take two at night and two on the second night after.

A tonic is administered from the first, one containing iron being preferred. The formula of this is as follows, the proportions being somewhat altered to suit individual cases :

R Magnesii sulphatis . . . . ℥ i
Ferri sulphatis . . . . . ʒ i
Acidi sulphurici dil. . . . ʒ iv
Syr. zingiberis . . . . . ℥ i
Aquæ . . . . . ad ℥ iv. M.

Sig.—Teaspoonful in water, through a tube, after eating.

In addition to this it is my custom to administer the sulphide of calcium from the beginning to the end of the treatment. I usually give it in the form of ¼ grain gelatin coated pills, one being given every two hours irrespective of food or other medicine. In order to have any good effect from this latter drug, it is essential that it should be fresh and pure. It is well to test the pills by biting them, when the characteristic odor of sulphuretted hydrogen becomes at once noticeable if the article is good.

Alcohol in all forms should be absolutely interdicted, and the malted liquors appear to be almost very harmful. The diet should be full and nourishing, but not stimulating. Milk is often given, sometimes in the form of punch and egg-nog between meals. Tea and coffee may be taken in moderation, but unnecessary and indigestible articles should be avoided.

The local treatment of felon consists simply in the constant and very thorough envelopment of the affected part in the diachylon ointment of Hebra, which, when properly prepared, forms a most agreeable and soothing dressing.

The author does not pretend to abort all cases, as he confesses that in many he gets suppuration and in some necrosis.—Dr. Buckley in *Jour. Am. Med. Ass'n.*

THE TREATMENT OF CHRONIC LEG ULCERS WITHOUT REST.—Baum, in the *Deutsche Medicinische Wochenschrift*, affirms that by adopting the following mode of treatment, ulcers of the leg may be cured while the patient follows his usual employment. First, the whole leg is most carefully washed with soap, shaved, and brushed with sulphuric ether. Then the ulcer is carefully disinfected with a three per cent. carbolic solution, applied by cloths dipped in it, which are kept on for half a day. The leg is then carefully dried and strapped, the strips crossing in front and overlapping at the edges. The plaster must be spread thickly on the linen ; breadth of each strip, four to five centimetres (1½ to 2 inches). Above this strapping eight layers of carbolic gauze are laid, and fastened with a carbolic bandage.

Every second day the bandage is taken off, and the carbolic gauze, especially over the situation of the ulcer, is thoroughly sprayed with a twenty per cent. carbolic spirit, then a fresh bandage is applied.

This treatment is continued for four weeks. On removing the whole dressing, the ulcer is found, in most cases, completely healed up. If a small spot should still be open, a small similar dressing is put on for a fortnight.

PROFESSOR RUNEBERG some time ago advanced the view that pernicious anemia may be dependent on the presence of intestinal tape-worm (*Bothriocephalus latus*). His views were snpported by some, and combated by others. A case which tends to support Runeberg's view is recorded by Schapiro in the London *Lancet*. A lad thirteen years of age came under treatment for intense anemia of a progressive type, charaterized by diminution of red corpuscles and of hemoglobin, with liability to cutaneous hemorrhage, epistaxis, etc., marked cardio-vascular bruits, pyrexia, and without any emaciation. It was not until the administration of anthelmintics had resulted in the evacuation of a large quantity of segments of bothriocephalus, that he began to regain strength and color. His recovery from that date was rapid. The writer attributed the anemia to the disintegrating action, on blood-corpuscles, of some chemical product of the parasite which was absorbed into the blood.

DURING the last year Dr. Hartamann (*British Medical Journal*) has treated otitis with instillations of several drops of a solution (one in ten) of carbolized glycerine with excellent results. Pain instantly disappeared, and the progress of the affection was checked. In cases where effusion existed, the relief obtained was equally great. M. Rohrer, who confirms M. Hartamann's statements, recommends a solution of twenty per cent.

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MATRICULATION IN MEDICINE.

The necessity for an extensive general education in medical matriculants must be apparent to all. Not only in the interests of science and public welfare, but also in the student's own best interest, does this necessity exist. That we, in Canada, have advanced the standard of matriculation in the past, and that our present examination is higher than that required by many schools of medicine, is perfectly true; but it is far from proving that we have arrived at the point from which no further advance can be profitably made.

The matriculation now insisted on by our Medical Council, cannot be said to err on the side of undue severity. Any youth of sixteen or seventeen years, of but moderate ability, having taken advantage of the public and high school privileges so common in Canada, finds but little difficulty in passing the required examination. But that such limited attainments thoroughly qualify him to comprehend and digest medical science, and to attend, with the greatest advantage to himself, our medical colleges is undeniably absurd. All physicians of experience must constantly admit, with humility and mortification, their deficiency in the knowledge of so extensive a science, after years of study subsequent to their college course, and must daily deplore their inability to completely grasp all the principles of so vast a subject. They find as they advance in knowledge that "Alps on Alps arise," that they are then only in the vestibule, and begin to despair of ever arriving at the inner temple. If then, after years of mental toil and conscientious devotion, at an age when our capacities are fully developed, we meet with so much difficulty, what shall we say of the youth, who enters college with a sufficient cramming at high school to barely enable him to pass the matriculation which is now required, at an age when his mental grasp is weak and the animal propensities largely prevail? His first term at college must be largely devoted to acquiring knowledge which he should have possessed prior to his entrance, and he must be handicapped during his whole medical course from having undertaken too much for the four sessions at college, while carrying the weight of his defective preparation in the start. Yet he often succeeds after this defective course, by the use of more or less cramming, in passing the final examinations with some credit as far as book-work and answering the questions prepared are concerned, but let him be tested practically by placing a patient before him, and he will most lamentably fail. Yet, in America hundreds of such are annually graduated, and passed out on the public, certified by an array of prominent and experienced medical men, as qualified to treat all the ills incident to humanity, and in whom a suffering public are advised they may confidently trust in the time of peril. But, notwithstanding the signatures of these experienced physicians to the certificates of qualification, they would hesitate to subject themselves or their families to the skill of these novices, whom they have solemnly affirmed to be duly qualified. How necessary then in the interests of the public as well as the profession, that a good mental training be made a *sine qua non*, prior to undertaking so difficult a study as medicine. At best, medical graduates must be very imperfect Drs. until experience has taught them many things. But a well trained and educated man has innumerable advantages in acquiring medical knowledge, and in perfecting himself as far as possible for the onerous duties of his subsequent life "A little learning is a dangerous thing," and nowhere is this more evident than in our profession. That many medical schools on this continent demand a lower matriculation, and annually turn out many less qualified graduates on a suffering community is not to the point. We are in no

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way responsible for this sad state of affairs. We can only express our sincere regret that a noble profession is thus prostituted for mercenary purposes, often we fear at the expeuse of the lives of many citizens. We should do our duty, by raising the standard, which action may to some extent influence others who are derelict in this direction.

The facilities for obtaining a fairly good education in this country at present must result in the coming generation being better educated than the present. If the profession do not advance with the age, we must fail to hold the superiority and prestige hitherto generally admitted by all, and lose the confidence and respect which for ages has been commanded by our superiority, and acknowledged by the world. The science of medicine is widening so rapidly, is so far reaching in its component factors, so extensive in its domain, so often dependent on almost every other science and so comprehensive in its scope, that the most powerful intellect must fail to grasp its multiple sides unless somewhat intimate with the collateral sciences, and pretty thoroughly imbued with the principles of all. Therefore, if we cared little for the public well-being, we should in the interests of science, the prosperity of our chosen profession, and its elevated position among men, refrain from sending out incompetents.

A profession can only be judged, in the mind of the laity, by its exponents. Consequently those half educated representatives practising the profession on a low level, solely for the remuneration it affords, must naturally degrade and dishonor it in the eyes of all intelligent men, and bring it down to the level of a trade.

It has been argued that an extensive preliminary education would prohibit many from entering college, and deprive poor men's sons of the privilege of obtaining the profession, but it must not be forgotten that incompetent physicians may deprive both poor and rich not only of their sons but other members of their families altogether. It is hardly possible to conceive that either the student's income or the time spent by him in proper preparation, bears any relation to the essential necessity of a thorough qualification prior to trusting the welfare and lives of our fellow citizens in his hands.

That the teaching of the schools should be limited to the mental or financial capacities, of all who seek from whim, caprice or otherwise, to enter the profession, is so pregnant with danger to the public, derogatory to the profession, and seldom beneficial to the student in after life, that it is not worthy a moment's consideration. It is to be hoped, therefore, that the authorities may take into serious consideration the necessity of raising the standard of matriculation at an early date, with the view not only of protecting the public interests in the future, but also of maintaining our reputation as a learned profession, inherited from an illustrious ancestry, through an extended period of time. The noble record handed down to us must not be permitted to depreciate in our hands. Our ambition worthily seeks to add to that record, and maintain the honorable position so long held by the profession, as the vanguard in the army of science, struggling to subdue not only pain and disease, and postpone the dire event advancing upon all, but to enlighten the darkness of superstition and ignorance and obviate their untold evils to mankind.

THE FREE USE OF WATER AS A THERAPEUTIC AGENT.

The opinion that the civilized races are too sparing in the use of drinking water, has been advanced during the past few years by some of the leading therapeutists of the world, and the idea that this proposition is correct has taken a considerable hold, not only upon the majority of the members of the medical profession, but through them has permeated to the more intelligent of the laity. Water is said to be a solvent of more substances than any other fluid, which is nothing more than might be expected if we consider its vast importance in the whole system of nature.

Now, the unsparing use of this solvent may be looked upon as the surest method of flushing the system, and of keeping the various organs and their ultimate histological elements in good working order.

Regarding the use of waters at spas and mineral springs, there can be no doubt that the complete change in the mode of life which frequenters undergo while taking a course at one of these resorts, has as much to do with the favorable results obtained as the imbibition of quantities of nasty sulphurous or chalybeate water. The rest

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and freedom from work and worry is perhaps more needed by the worn-out merchant or jaded politician than is iron or alkalies. Indeed, this principle is now so widely recognized that sanitariums are springing up in places where no medicinal properties are vaunted for the waters. To ladies who have gone through a "season," with its many anxieties, its intense excitement, and its reversing the periods of rest and wakefulness, the change also to an out-door life, pure air, healthful exercise, lessened excitement and pleasant, easy-going life at the seaside or health resort, is just what is needed to restore the over-worked nervous system to its proper balance, and give that sense of lightness and well-being which can only be felt when all the organs and tissues of the body are thoroughly depurated. Doubtless the waters at medicinal springs, taken in large quantities, are beneficial to many forms of disease. Why is it, however, that with all the refinement of analysis of our chemical laboratories brought to bear upon mineral waters, with a positive knowledge of their every constituent, even down to three decimal places in grains, that we are not able to get the same good results from the administration of such remedies, when artificially prepared, as are got when prepared in nature's laboratory? We can prescribe any or all of the salts found in the most noted springs of the world, to be taken out of a spoon with the utmost regularity; we may regulate the diet, the sleeping hours, the amount of work, even, which shall be indulged in by our patient, and yet get no such results as are got at health resorts. The difference in result is believed to be due, leaving out the advantage gained by the change of scene, air, etc., already referred to, to the greater dilution of the remedies contained in the natural waters. We said just now we could order our patient's remedies to be taken out of a spoon. If we ordered them taken out of a large tumbler, we should have better results with many of them. There is not enough plain water taken by most of us, especially in cities and towns. For social reasons women refrain from drinking water, and so often do men. Our working population, afflicted by no such restraints, and prompted to quench their thirst by plentiful draughts of water, are much better off in this respect. Such people rarely need a sojourn at a spa, and, indeed, get much of the benefits which visitors to such resorts obtain, by drinking largely at home. It flushes the system, bathes every tissue, dissolves and removes the products of tissue metamorphosis, keeps the skin more active, stimulates the kidneys to the removal of waste matter, and unloads the emunctories generally, and so leaves the cells in the best condition for functional activity, unclogged by surrounding debris and able to perform their respiration freely and naturally. Thus it not only removes old, worn-out matter, but paves the way for the re-construction of new material, and the whole system is as it were, from day to day rejuvenated. This explains the popular idea that drinking much water increases the weight of the body, which, under many circumstances, is absolutely true. Fuller pointed ont the necessity of ordering large draughts of water when administering chalybeates. Ringer speaks of water as being a "true tonic, improving the vigor of the body and mind." The ordinary tumblerful of cold water every morning is an excellent hygienic measure; it washes out the stomach, clearing its membrane of mucous which would hinder the free secretion of the gastric juice, acts locally as a tonic to the gastric walls, stimulates the action of the bowels, and is, as Fothergill says, "a true hematinic, by its removal of waste matter, which hinders histogenesis." The same writer also states that the difference between no results from the administration of iron, and satisfactory treatment, lies in no more than this, the free use of water as a diluent.

THE WILLIAM F. JENKS MEMORIAL PRIZE.—The First Triennial Prize, of two hundred and fifty dollars, under the Deed of Trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Diagnosis and Treatment of Extra-uterine Pregnancy." The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that "the Trustees, under this deed for the time being, can in their discretion publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may in their judgment be sufficient for that purpose, and the essay or paper be considered by them worthy of publication If published, the

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distribution of said essay shall be entirely under the control of said Trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia." The prize is open for competition to the whole world, but the essay must be the production of a single person. The essay, which must be written in the English language, or if in foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pennsylvania, U.S.A., addressed to Ellwood Wilson, M.D., Chairman of the William F. Jenks Prize Committee, before January 1, 1889. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The committee reserves the right to make no award if no essay submitted is considered worthy of the prize.

PUNISHING PATIENTS FOR THEIR OWN GOOD.—The following from the *Lancet* will be appreciated :—

A woman, at Berlin, brought a little boy aged four to be treated. Some local examination was necessary, which, though it could not in the least have hurt the child, caused him to scream and kick so violently that nothing could be done with him. The doctor did his best to soothe the little fellow, but all to no purpose. He then came to the conclusion that the child was crying merely from naughtiness, and, losing all patience, administered a few slaps on the buttocks for the cure of this affection. The mother became very angry, and, snatching up the child, carried him off, subsequently obtaining a summons against the doctor. The court, however decided that the defendant had slapped the child with the object of doing him good, and therefore discharged the case. A similar charge was brought some time ago against a St. Petersburg medical man in a Russian court by an officer's wife. Here also the court took the doctor's side. Those who have much practice amongst children know how tiresome they can be, especially when they are spoilt and poorly. In these cases it is often found needful to resort to some system of rewards, and even to punishments ; but it certainly is not advisable for a medical man to take upon himself to slap a patient, though he may be occasionally sorely tempted to imitate the example of the Berlin defendant. Whether an English court would regard the matter in the same light as the Berlin and St. Petersburg ones seem to have done, may be open to doubt.

There is no doubt we all have felt that the *argumentum baculinum* would often prove very efficacious in cases like the above. So also have we all felt what a blessing would be conferred upon many a patient suffering from an incurable disease, if the law permitted us to grant them a speedy and easy relief from their earthly woes. But it is to be feared that in either case abuses would creep in, which would more than counterbalance the good which might result.

ADVERTISING EXTRAORDINARY.—Following is an advertisement which we copy *verbatim et literatim* from a newspaper, printed not a thousand miles from Toronto :—

TO MY PATIENTS, PATRONS, AND FRIENDS.

Desirous of becoming acquainted with the most recent advances in Medicine and Surgery ; and of learning thoroughly and practically the best and latest treatment of all diseases, I have decided upon taking a short course in the now renowned Medical Schools of New York—in order that I may the better treat all who may honor me with their confidence. During my absence, Dr. ——— will take charge of my practice, and I am pleased to be able to recommend him to all my friends, confident that he is ably qualified to give the best attention and treatment to all calling upon him. Dr. ——— has had the advantage of a full course in New York, and is careful, steady and attentive, and will, I doubt not, give the best satisfaction. Hoping to meet all my friends again in a short time, I remain, Yours most sincerely,

———————.

We are glad to state that the *esprit de corps* of the profession in Canada is such, that any comment upon the above is unnecessary. We are weary of the subject of unprofessional advertising, having written short editorial articles on it two or three times in the past two years. Hardly a week passes without our having our attention called to this subject, but lest we should lay ourselves open to the charge of always harping on one string, and of giving our readers our ideas on the subject *ad nauseum*, we usually pass such remainders over in silence.

IODINE TRICHLORIDE. — This preparation of iodine (*Lancet*) is a stronger germicide than carbolic acid, and nearly as strongly germicidal as the

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bichloride of mercury. It is soluble in water, and is not poisonous. It may be used in aqueous solution in the proportion of 1 part to 1,000 of water. This solution may be used for the hands, wounds, or instruments. Langenbech speaks very favorably of it, and recommends it for gonorrheal injection in the proportion of 1 to 1,200. In dyspepsia due to bacteria, he gives the solution in teaspoonful doses every two hours. When used for the hands, instruments, etc., the slight discoloration may be relieved by the use of ammonia.

THE NITRITES IN ASTHMA.—Dr. Fraser (*Am. Jour. Med. Sci.*), writing on the cause of asthma, and the influence of the nitrites upon it, establishes the view that the dyspnea of asthma is caused by spasm of the bronchial muscles, and points out the value of the nitrites in its relief, and that the best therapeutic effects are not obtained by the inhalation of nitrites, but by their administration through the stomach. The facts seem to justify the assertion that their administration in this manner in asthmatic dyspnea or orthopnea is entitled to rank as one of the most valu able applications of pharamacology to the treatment of disease, an application at least as valuable as that in the painful agina of aortic disease, to which nitrites are at present almost restricted.

PERMANGANATE OF POTASH IN TOOTHACHE.—Dr. Popoff writes, says the *Br. Med. Jour.*, that he has most successfully treated upwards of three hundred cases of toothache from dental caries, by administering one-twentieth per cent. solution of permanganate of potassium in the form of a mouth-wash. The following is the formula :—

R.—Potass. permang., 3 grains ; aq. destil, or fontanæ, 1 (Russ.) fl. pound, M. One tablespoonful to be taken in the mouth, every half-hour, and to be held therein on the affected side for several minutes. The most agonizing pain is said gradually to disappear in a few hours. The wash acts, besides, as an excellent deodorizer.

GANGRENE FOLLOWING THE USE OF COCAINE.—Dr. Nichols relates (*N. Y. Med. Jour.*) two cases of gangrene occurring in minor operations, cocaine having been used as an anesthetic. The first was the amputation of a crushed finger, where an injection of 15 min. of a 15% solution of cocaine hydrochloride had been used. On the fourth day gangrene was found, and re-amputation resorted to. The second case was one of circumcision, in which gangrene showed itself in the third day. The writer queries, what part, if any, did cocaine play in the causation of gangrene. Both patients were healthy, and were aged sixty-five and twenty-four, respectively.

CREASOTE IN PHTHISIS.—Numerous cases of improvement in phthisis by the administration of creasote, have been reported (*Lancet*). It is useful in the first and second stages, but not in the third stage of this disease. It may be given in capsules, pills, or in wine, glycerine, or fish-oil, to the amount of about 3 drops in 24 hours. It produces an alleviation of some of the most distressing symptoms, as lessened cough and expectoration ; fever and night sweats ; as also increase in body weight. The above seems to be fully substantiated by careful observation in numerous cases by prominent physicians, and is therefore worthy of the most serious and careful investigation by the profession.

FOR IRRITABLE BLADDER.—The following is said (*Maryland Med. Jour.*) to allay the frequent desire to urinate, with irritable bladder, when due to phosphatic deposit in the urine.

R.—Acidi benzoici, ... ʒij.
Boracis, ... ʒiij.
Aquæ, ... ℥xij.
M. Sig.—Tablespoonful three times a day.

This mixture has, upon two occasions, acted so efficiently in what was thought to be cystitis that cystotomy was dispensed with.

STROPHANTHUS.—The London correspondent of *The Therap. Gazette* says of strophantaus:—"Strophanthus is at the head of cardiovascular agents ; it rapidly raises the arterial pressure in cases of dilatation of the heart, and its power for good is shown by free diuresis and a speedy improvement of the subjective symptoms. Caffeine is regarded more as a direct renal stimulant, not a cardiac tonic, and to secure its full action it should be combined with digitalis, convalaria or strophanthus."

EHRENDORFER'S PENCILS OF IODOFORM.—These pencils (*Lancet*) have the following composition :—Two drachms and a half of iodoform and fifteen

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grains each of gum glycerine and starch, to make one bougie. They have been favorably known to gynecologists for some time, but deserve a wider field. They continue to melt for three or four days and so keep the genital passages irrigated constantly during that time, with a mild stream of iodoform. They are said to be useful in cases of ruptured perineum, by simply introducing them into the vagina.

PROF. H. C. WOOD speaks highly of the power of the following (*Phila. Med. Times*) to abort an acute bronchitis:

℞—Potasii citratis, ... ℥j.
Syr. ipecacuanhæ, ... ℥j.
Succi. limonis, ... ℥ij.
Aquæ, ... ℥iij. M.
Sig.—℥ij every three hours.

AMERICAN MEDICAL ASSOCIATION.—The thirty-ninth annual session of this Association will be held in Cincinnati, Ohio, on Tuesday, Wednesday, Thursday and Friday, May 8, 9, 10 and 11, commencing on Tuesday, at 11 a.m. Addresses have been arranged for the various departments by eminent men from all parts of the Union. Secretaries of Medical Societies are earnestly requested to forward at once, lists of their delegates to Wm. B. Atkinson, M. D., Secretary, 1400 Pine St., Philadelphia.

LAXATIVE GASTRIC TONIC.—Bardet has used the following combination (*Jour. de Méd.*) with advantage:

℞ Ext. fluid. cascara sagrad. ʒ 5.
Tinct. nucis vom. . . . ♏ 30.
Aquæ destil. . . . . ʒ 28¾.
Syrup. simpl. . . . . ʒ 3¼.—M.
S.—℥i. p.r.n.

FOR SPERMATORRHEA. — The *Med. Summary* says:—The monobromide of camphor has been successfully used In the treatment of spermatorrhœa, where a host of the usual remedies had been administered with no satisfactory results; finally, the monobromide of camphor was given in two to three-grain doses, four times daily, with prompt effect and perfect cures.

INCONTINENCE OF URINE.—Dr. W. S. Cline, of Tom's Brook, Va., writes as follows to the *Med. World*, in reference to an enquiry by a correspondent as to treatment of incontinence of urine. If he will get 100 Parvules cantharides, $\frac{1}{10}$ gr., prepared by W. R. Warner & Co., and give one thrice daily, he can cure his patient, and she can drink all the water she wants. I never withdraw usual diet. Have never seen a failure.

TO ALLAY ITCHING.—The following is recommended:

℞.—Sodii carbonat., ... ℥ss.
Morphiæ sulph., ... gr. vj.
Aq. sambuci, ... ℥j.
S.—For external use. M.

LITHIUM AND ARSENIC IN DIABETES.—Vigier recommends (*Therap. Gaz.*) the following:

℞.—Lithii carbonat., ... gr. iss.
Sodii arseniat., ... gr. $\frac{1}{10}$.
Ext. gentianæ, ... gr ¾.
For each pill. To be taken morning and night, and continued until sugar has disappeared from the urine.

BICARBONATE OF SODA IN NOCTURNAL INCONTINENCE.—Dr. Sell recommends (*Le Practicien*) as a remedy which has often proved successful in nocturnal incontinence of urine, bicarbonate of soda in teaspoonful doses at bedtime. He states that the patient is either completely cured or greatly benefited.

PROF. WAUGH (*Phil. Med. Times*) prescribes the following for myalgia in a strong man:—

℞.—Ammon.-chlorid., . . . gr.xxx.
Ext. belladon., ... gr. ½. M.
Sig.—As a dose three times a day.

ANTIPYRINE IN THE "ALGIAS."—Dr. Poole, writing to the *Med. Times*, speaks highly of the above remedy in the "algias." He has had only good results from its use. Even that *bête noir*, sciatica was relieved in the case of a woman of 57, by the exhibition of a few fifteen grain doses. The writer says he has not found the same benefit from antifebrine.

BRITISH DIPLOMAS.—The following gentlemen have received the L.R.C.P. London at the late examinations:—Dr. W. P. Caron, T. Ovens (Trin.), H. C. Scadding, W. R. Shaw (Tor.), and F. J. White, of Montreal. J. W. Peaker, M.B., (Tor.), has taken the M.R.C.S., Eng.

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STERILITY IN MEN.—Kehrer, of Heidelberg (*Med. News*), says the percentage of sterility in men is 35.32.

BORACIC ACID FOR STYES.—A three-per-cent. solution of boracic acid dropped on the stye, several times a day, is said to effect a cure and prevent a return of the trouble.

Dr. Afanasieff has succeeded in finding (*Lancet*) and cultivating the bacillus of whooping cough.

PROF. WOODBURY advises the administration of sodæ phosphat. to children with clay-colored stools, instead of the routine dosage with mercurials.

IT is said that Prof. Unna, during his visit to America, received a consultation fee of $6,000 from a wealthy lady of New York.

IT is stated (*Lancet*) that enveloping the limb for one night in flowers of sulphur, will cure sciatica. The urine next morning smells strongly of sulphuretted hydrogen.

A TEACHER said to a member of a certain State Board of Health who was investigating the condition of her room, "No, I haven't any ventilators: I don't see any use for them." "But how do you keep the air pure?" "Oh, I've got a thermometer."

THE *Medical Record* makes the request of its contributors to send in their manuscripts folded, not rolled. This suggestion is excellent and will save phosphates to medical editors. The *Record* says: "A voluminous manuscript which has been rolled up for a long time, is a most unmanageable thing."

JONATHAN HUTCHINSON makes the suggestion that the long-continued administration of arsenic in large doses may produce a form of cancer closely allied to epithelioma, but presenting peculiar characteristics.

THE giant Winkehoneyr now on exhibition in London, is eight feet nine inches in height. He falls short of the famous Irish giant O'Brien or O'Byrne, whose skeleton is preserved in the museum of the Royal College of Surgeons, by some inches.

PROFESSOR WAUGH has had much success with ext. jaborandi fl. in erysipelas. He administers twenty minims every two hours till perspiration commences. If the disease recur he resumes the use of the drug.

WHEN it is a question of nerves, says the *Med. and Surg. Rep.*, the power of imagination is supposed to be stronger in women than in men, but this was not shown in a recent hospital experiment. Dr. Durand, wishing to test the practical effect of mind disease, gave a hundred patients a dose of sweetened water. Fifteen minutes after, entering apparently in great excitement, he announced that he had, by mistake, given a powerful emetic, and preparations must be made accordingly. Eighty out of the hundred patients became thoroughly ill, and exhibited the usual result of an emetic; twenty were unaffected. The curious part of it is that, with very few exceptions, the eighty "emeticised" subjects were men, while the strong-nerved few, who were not to be caught with chaff, were women.

Books and Pamphlets.

TEXT-BOOK ON MATERIA MEDICA AND THERAPEUTICS. By Robert T. Edes, A.B., M.D., Professor of Materia Medica in Harvard University, etc., etc. Philadelphia: Lea Brothers & Co., 1887. Toronto: Carveth & Co.

This work is modest as to its size, and we believe fairly fulfils the author's expectation of presenting to the student and young practitioner "a concise, practical working view of the present state of Pharmacology and Therapeutics." The work has our thorough approbation in several respects, but in none more than in the omission of descriptions of crude drugs, which descriptions, so far as utility to the learner is concerned, would "be far surpassed by a few hours in a cabinet of Materia Medica or in a well furnished drug store."

The author perhaps inclines too much to condensation when discussing important drugs. We do not believe that 'compends' are the kind of reading most beneficial to a student, or that short, terse statements of facts are easiest understood or remembered.

The work in hand does not compare with those

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of Bartholow or Wood, but will, we believe, be useful to the student who has not time to read more extended works.

A COMPLETE HAND-BOOK OF TREATMENT. By William Aiken, M.D. Edin., F.R.S. Edited by A. D. Rockwell, A.M., M.D. New York: E. B. Treat & Co. 1887.

This volume contains in a short compass the most important points on the treatment of disease as met with in every day practice We have had occasion to consult it not a few times during the past month, and have found it very useful when time did not permit the perusal of everything that could be said upon any certain disease, but did allow of a glance at the best and most recent methods of combating it. We recommend the book as of great practical use. The printing and proof-reading are not what they should be, considering the high standard of excellence American medical works have attained in these respects.

LEA BROTHERS & Co., of Philadelphia, will shortly publish *A Clinical Atlas of Venereal and Skin Diseases, including Diagnosis, Prognosis and Treatment*, by Professor Robert W. Taylor, M.D., formerly President of the American Dermatological Association, and Joint Author of Bumstead & Taylor's *Pathology and Treatment of Venereal Diseases*. The work will be issued in eight parts, aggregating 58 large folio chromo-lithrographic plates, measuring 14 x 18 inches, and containing about 20 figures, many of them life-size, executed with the utmost faithfulness and beauty of detail. These plates will delineate typical cases from the practice of the author, and selections from the entire literature of Europe, including among others the works of Cullerier, Fox, Fournier, Hebra, Hutchinson, Kaopsi, Neumann and Ricord. The text will deal chiefly with the practical aspects of the subjects, and will be illustrated with a series of unusually large engravings, executed specially for this work, and drawn principally from original matter in the possession of the author.

DISEASES OF THE SKIN. By John V. Shoemaker, A.M., M.D., Prof. of Skin and Venereal Diseases in the Medico-Chirurgical College and Hospital, of Philadelphia, etc New York: D. Appleton & Co. Toronto: Williamson & Co.

This is a large work of 633 pages, and profusely illustrated with colored plates. It is a treatise on the skin which we can recommend to every physician as a work of reference, and in which he will find the latest views on pathology and treatment. At the end of the work are a number of formulæ, which will prove very valuable as a reference. It is certainly a very complete book.

DEFFERENTIAL DIAGNOSIS OF THE DISEASES OF THE SKIN. By Condict W. Cutler, M.S., M.D., Assistant Physician for Skin and Venereal Disease at the New York Hospital. New York: G. P. Putnam & Sons.

This a tabulation of the various diseases of the skin contrasting each with others it may resemble. A work in which one can quickly find the main points in diagnosis.

THE EPISTLES O' AIRLIE is the title of the collection, in book form, of the "Airlie" letters which have appeared in *Grip* during the last few years. Mr. J. W. Bengough has drawn special illustrations for this edition, and we think the book is destiined to become popular.

WHY I JOINED THE NEW CRUSADE. A Plea for the Placing of Taxes on Land Values only. By Richard T. Lancefield. Delivered before the Anti-Poverty Society of Toronto. Grip Puulishing Co., Toronto, 1887.

Births, Marriages and Deaths.

At Kobe, Japan, January 9th, Rev. Wm. Cassidy, M.D., Medical Missionary to Japan, late of Toronto, aged 33 years.

At Sherbrooke, Mr. Harry Langton Gilbert, M.D., F.R.C.S., Eng., aged 34.

At Bedford, Que., on 3rd February, James McNabb Cassels, M.D., aged 48.

On 4th February, at 283 Church St., Toronto, Richard Zimmerman, M. D., L. R. C. P., Lond., aged 36.

On 8th February, at Winnipeg, Albert G. Jackes. M.D, aged 44.

At New Glasgow, N. S, February 12th, George Murray, M.D., ex-M.P.P., for Pictou.

At Toronto, February 13th, John H. McCallum, M.D., aged 47 years.

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Original Communications.

CASES IN PRACTICE.*

GEORGE T. M'KEOUGH, M.D., M.R.C.S.ENG., CHATHAM.

Poisoning by Corrosive Sublimate from a Vaginal Tampon.

Mrs. J. W., aged 36; multipara, pregnant about three months, although she was not aware of the fact, as she had been losing blood periodically since the weaning of her last baby. I was sent for on the present occasion on account of profuse flooding and before I could reach her, some miles in the country, she had lost a large quantity of blood and presented on my arrival a decidedly anæmic appearance. About six months previously I had made an examination of her pelvic organs and found a large bilateral laceration of the cervix uteri, a profuse cervical catarrh, and a hyperplastic condition of the entire uterus. No treatment was however inaugurated except the use of hot water vaginal injections. I now could merely feel through the torn, cicatrised and but slightly dilated os, the contents of the uterus. I immediately proceeded to prepare a tampon, but unfortunately finding my boro-glycerine bottle empty, the medicinal agent I usually employ for disinfecting my tampons, I put about 5 grains of bichloride of mercury and a pinch of table.salt into a bowl containing about a pint and a half of warm water, moistened half a dozen good sized pads of cotton batting with the mixture, and with the aid of a Sims' speculum placed them in the vagina firmly around the uterus. I left her, expecting to return the following day. A few hours later, however, I was again summoned, and found my patient suffering severely from pelvic pain, not intermitting, nausea, and a general feeling of illness. Her temperature was normal, pulse quick and physiognomy distressed and anxious. Suspecting the probability of poisoning by the mercuric salt, I immediately removed the tampon, and syringed the vagina thoroughly with hot water and afterwards with a mixture of the white of eggs and milk. During the three following days she suffered from severe pains in the abdomen, frequent dysenteric stools, nausea, vomiting, stomatitis and general depression. She was given brandy and water, milk and raw oysters freely. A mixture of pot., chlor. suppository of opium and belladonna, with frequent vaginal injections of albuminous mixtures, constituted the treatment. The uterine contents becoming offensive with rise of temperature, denoting commencing septicæma, they were removed upon the third day with finger and curette, when the temperature became normal and remained so. After a few days of great anxiety to me, she quite recovered.

This case occurred in my practice some time ago, before mercurial poisoning from the generative tract was as well recognized as it is at present. At the time I was not sure whether the absorption took place from the vagina or injured cervix. I have learned since that usually toxic symptoms are the result of injection fluids being retained in the vagina and absorption occurring from the vaginal, mucosa. The uterus after an injection usually contracts and expels all fluids, which however, unless measures are taken to prevent it, may be retained in the vagina. In my case absorption probably took place both from the vagina and uterus, the anæmic condition of the patient facilitating the accident.

Malarial Hæmaturia (?)

A. Mrs. S., aged 36, a robust, red-faced English woman, recently arrived in this country. Mother of several healthy children. No history of a hæmorrhagic diathesis in her family. Consulted me on account of passing bloody urine, which had begun the day previous. In other respects felt tolerably well. Ordered gallic acid and ergot, which was taken for some days without controlling the hæmorrhage, when she was seized with what seemed a typical paroxysm of ague, for which quinine was ordered. Her stomach being irritable, the first mixture was discontinued. After taking quinine for twenty-four hours, the urine rapidly

*Read at the Chatham Medical and Surgical Society, March 2nd, 1888.

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cleared up and there was no subsequent return of fever. On two subsequent occasions within a year from her first illness of this nature, she had two other similar attacks of hæmaturia without fever. Quinine was given on both occasions with immediate improvement.

B. Annie C., aged 3, had a chill followed by fever one afternoon, the following morning she played with other children and seemed apparently well. That afternoon she had fever again, and a severe convulsion; during the night following she passed bloody urine frequently. Quinine was administered during the second paroxysm of fever and continued for a day or two. The urine cleared up on the third day of her illness, during the afternoon of which she had a slight fever; she was, however, soon quite well. In both these cases the microscope revealed blood corpuscles apparently unchanged in shape. The nature of the morbid action in these cases is inferred to some extent by the mode in which they were effected by the remedial agent employed. The evidence, if not demonstrative, is highly probable.

Hysterical Vomiting.

Miss S., aged 19, a hyper-sensitive, active, highly strung young lady, neither petite nor corpulent. Had been ill for a year, vomiting daily once or more; there was no loss of flesh, and no symptons pointing to organic lesion. Her appetite was good, tongue clean, and bowels regular. She complained of heaviness of her limbs, weariness, melancholia, frontal headache, burning sensations in the stomach, cardialgia and gastralgia. She had been under the care of several physicians, and every known remedy had probably been tried and failed. Her uterine functions were normal, with the exception of slight dysmenorrhœa. Physic and diet evidently having been faithfully and systematically used without any encouraging results, and no lesion being discoverable, to account for the persistence of the vomiting, the difficulty was supposed to be neurotic. She was advised to desist from medicine entirely, to pay as little attention to the stomach as possible, to direct her attention to other subjects and to go out into the world. Her friends were instructed to pay little heed to her complaints or her vomiting. As a result, within a month, the vomiting almost ceased, and in a very short time she became, instead of a "hysterical vampire," a cheerful, useful member of society.

Sudden Deaths in Pneumonia.

W. K., aged 30, a young healthy man with a good family history, but at times somewhat intemperate in his habits. Had contracted pneumonia which progressed typically but favorably until the tenth day of his illness. I saw him on the morning of that day, when his condition appeared as propitious as could be desired. Temp. normal, resp. 22, and pulse 70. There were, however, some crepitations and bronchical breathing, with dullness in the lower half of right lung posteriorly. He was in good spirits and hungry. He felt so well that evening, that he requested his mother, who was nursing him, not to remain up during the night. She was however awakened by him, shortly after she had retired, and found him suffering severely from a cramp in one of his legs. Rubbing the limb briskly not relieving the pain, he insisted upon getting out of bed and walking it off. After taking about a dozen steps, assisted by his mother, he asked in a feeble voice to be laid on the bed again. On doing so, it was noticed that he seemed to gasp once or twice and then cease to breathe. His thoracic viscera were examined about 24 hours after death. The middle and inferior lobes of the right lung were found in a condition of red hepitazation,—there was also about seven ounces of bloody fluid in the right pleural cavity. The right side of the heart and pulmonary artery were filled with clotted blood, no evidence of endocarditis was discovered. About the same time, Dr. Bullis of Dresden lost a case of pneumonia that Dr. Holmes had seen in consultation, under somewhat similar circumstances. His patient was progressing favorably towards convalescence, when some one unwisely gave the alarm of fire just outside her room. She suddenly sat up, got out of bed and almost immediately fell back dead.

This formidable accident of sudden death in pneumonia, although not usually referred to in the text books, is one that must be apprehended in all cases until convalescence is fully established. It usually occurs during the period of supposed convalescence, when an early and perfect restoration to health is prognosed by the physician and looked forward to by the patient and friends. Sudden arrest of the heart's action, which is the cause of

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these unfortunate occurrences, may be due to heart clot, owing partly to the hyperinotic state of the blood in pneumonia and partly to debility of the muscular walls of the heart from parenchymatous degeneration of its muscular tissue, or to endocarditis. The heart in this damaged condition may still be capable of doing its work with the body at rest in a recumbent posture; but any sudden elevation of the body to the erect posture, imposing an extra strain upon the organ, might cause a fatal paralysis. The practical lesson is obvious.

ON THE NECESSITY FOR A MODIFICATION OF CERTAIN PHYSIOLOGICAL DOCTRINES REGARDING THE INTERRELATIONS OF NERVE AND MUSCLE.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.*

HOW ARTERIAL SEDATIVES ACT.

Ergot of rye is an agent which produces in a marked degree contractions of involuntary muscular fibre everywhere, but whose effects are especially seen in the arterioles and uterus. Must not a uniform law or rule govern the occurrence of such contractions? We have seen that they occur best under a deprivation of nerve action, and are never so complete as in the general death of the body. How then can ergot be regarded as a stimulant? Who would ever think of administering it in cases of faintness and exhaustion as a restorative of nerve energy? Must it not act, like nerve section and nerve paralysis, in lessening the tone of the vascular and motor nerves, so setting free the contractile energy of the arterial and uterine muscles, which contract accordingly?

Dr. Sidney Ringer grows enthusiastic over the action of aconite in acute congestion of the tonsils, and that, too, in doses too small to reduce the action of the heart. Aconite undoubtedly causes contraction of the arterioles, and accordingly on the theory of the day it must be classed as a stimulant, as it actually has been by some authors, Dr. Edward Meryon, M.D., F.R.C.P., for instance, who holds that "it stimulates the dormant fibres of Remak and by so doing diminishes the calibre of the arterioles" (*a*). Errors of this kind must be charged to the misleading guidance of an erroneous theory. Aconite is a profound paralyzer, and in small doses, by lowering the activity of the vaso-motor nerves, it frees the contractile power of the muscular bands of the arterioles, which contract accordingly, lessening or curing congestive states.

Is not this precisely the *role* of the galvanic current, when brought to bear upon the cervical sympathetic, say in exophthalmic gottre? The thyroid gland and its appendages are being overfed by dilated arteries. Bring about contraction of these arterial tubes, by lowering the activity of the vaso-motor nerves in the way just indicated, and the congestion and hyperplasia are relieved if not cured. But the electric current, for therapeutic purposes, has been classed as a stimulant! So has strychnia; so ought to be prussic acid, for it, too, causes spasms and convulsions of muscle! So is fatal hemorrhage. All stimulants, as well as aconite, on the theory of the day! It would require a volume to elucidate these points, and I must condense what I have to say into a few paragraphs.

STRYCHNIA A PARALYZING AGENT.

Dr. Harley has shown that strychnia probably acts by preventing the oxygenation of the blood, which Dr. C. B. Radcliffe very properly holds cannot be the *role* of a stimulant. Dr. Ringer tells that "after traumatic and strychnia tetanus the functions of the motor nerves and muscles are depressed; the motor nerves conveying impressions imperfectly." But may not this motor nerve depression be due to a reaction from previous over excitement? Dr. Ringer says no! and adds, "Strychnia directly depresses motor nerves, for large doses kill without exciting convulsions, when the motor nerves are found to have lost their conductivity" (*b*). Which in physiological language means that the nerves are paralyzed. Dr. W. A. Hammond has recounted an experiment performed by himself and Dr. S. Weir Mitchell, which, he says, "shows that the action of strychnia is to destroy the nervous excitability from the centre the periphery" (*c*). Dr. Ringer further furnishes

* Read before the Physiological Section of the Ninth International Medical Congress, held in Washington, September, 1887.

(*a*) Rational Therapeutics, p. 52.
(*b*) Therapeutics, 5th American Ed., p. 499.
(*c*) Dis. Nerv. Syst., p. 539.

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strong evidence that paralysis, and not over-action is the condition of the nerve centres in tetanus. He instances "certain poisons, like gelseminum and buxus sempervirens, which produce *at the same time* both weakness of natural co-ordinated reflex action, cord paralysis and *tetanus*." He says "it is impossible that the tetanus should depend on stimulation of the cord, for we have seen that the tetanus was preceded by considerable depression of the cord and continues until the depression ends in extinction of all cord function;" or, as he says again, the tetanus "occurred in a dying cord" (*d*).

In strychnia poisoning, death occurs from asphyxia (*e*), with its contracted and empty arteries and engorged veins:—the precise condition of the vascular system produced by destruction of the spinal cord, as in pithing, as already shown in a previous page. Do not the foregoing facts show that strychnia does not kill as a stimulant, or excitant, of the spinal cord? Moreover, medical literature clearly shows the value of alcoholic stimulants in strychnia poisoning, but I cannot delay to quote it. On the other hand, chloral hydrate, which has some reputation in these cases, is "not by any means antagonistic" to the action of strychnia. It acts by simply lessening the contractile energy of the muscles, like other anæsthetics, by de-oxidizing the blood, and thus retarding the chemical process in the muscle, whereby its contractile force is generated. In this way the convulsions are arrested, and time gained for the elimination of the poison. But dangerously large doses—seven or eight grammes—(about two drachms)—are required for this purpose (*f*). "Strychnia affects paralyzed, sooner than unparalyzed muscles," writes Dr. Ringer: but this is not exact. Strychnia does not affect the muscles at all, as Dr. R. himself shows; and the muscles are not paralyzed in the cases to which he refers. What he means is that strychnia induces twitches and spasms in muscles whose nerves are enfeebled, sooner than in muscles whose nerves are acting normally. Why is this? If strychnia were a stimulant, would it not sooner excite vigorously acting nerves than enfeebled ones? But since its effect is to cause "depression of the motor nerves," nerves already suffering in this way have their activity more easily extinguished, and their muscles set free, than is the case with healthy nerves. The same thing is equally true of the other paralyzer, electricity. Twitches, tremors, spasms and tetanus are all but varying stages of nerve paralysis and of muscular freedom.

ELECTRICITY A PARALYZING AGENT.

Prof. Tyndall tells us that a mere trace of iron in the coils of a galvanometer, of even such splendid instruments as those used by Prof. Du Bois Reymond in his researches on animal electricity, caused a fallacious deflection of the needle, to the extent of thirty degrees and more (*a*.) It is therefore not to be wondered that erroneous conclusions were sometimes arrived at in experiments so beset with fallacies, even when conducted apparently with the greatest care. So mysterious a force, which exhibits itself alike in the lightning's flash, in a tiny spark and the quiver of the eminently sensitive protoplasm of a muscle, might well excite wonder and enthusiasm. As investigation proceeds, however, the exaggerated ideas as to the important part played by electrical currents in the phenomena of nerve and muscle, and even of life itself, which prevailed some years ago have been rapidly on the decline among students of electro-physiology; but will doubtless linger long in the popular and even in the professional mind. But electricity is not nerve force, nor can it cause the generation of nerve force, which is impossible in a mere nerve trunk separated from its nervous centre. This must be obvious. If it produce effects equivalent to a loss of vital action such as occurs in the death or destruction of portions of the nervous system, it must be classed as a sedative and not as a stimulant. In the experiments about to be mentioned the currents employed are those used for ordinary physiological and therapeutic purposes.

The effect of such a current applied to the inferior laryngeal nerves is to induce spasm of the muscles of the glottis. "The rima is completely closed" (*b*). That is to say, it does precisely what we have seen above is done by section and paralysis of these nerves. Applied to the lower ends

(*a*) London *Lancet*, Feb. 17, 1887, p. 288; *Braith. Retros.*, July, 1887, p. 98.
(*b*) Fothergill, Antag. Ther. Agents, p. 55.
(*c*) Lyman's Anæsthetics, Wood's Library, pp. 264, 267, 275.
(*d*) Heat as a Mode of Motion, p. 34.
(*e*) Dr. B. Sanderson, Handbook, p. 308.

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of the vagi it causes contraction of the œsophagus and stomach and "in most cases vomiting" (*a*). Just as we have before seen, results from section of those nerves. We have had proof that section of the spinal cord and of vaso-motor nerve trunks induce contraction of corresponding arterioles. Similar effect is produced by electrization of the same parts, the calibre of the arteries being sometimes reduced to one-sixth of their normal size (*b*).

Dr. M. Foster tells us that section of the spinal cord at the medulla, or in the dorsal region, arrests the secretion of urine; and such a section of the cord is of course a paralyzing act. He also tells us that the electrization of the spinal cord below the medulla also arrests the secretion of urine. Then is not this a paralyzing act also? It is unnecessary to multiply examples. Shall we continue to call an agent a stimulant and refer to it as an excitant of nerve activity, the ordinary effects of which on nerves are equivalent to nerve section, nerve paralysis and death!

MILD CURRENTS PARALYZE.

It is sometimes said that powerful currents may paralyze and even kill, but that mild or weak currents merely stimulate or excite. Is there any proof of this? Where in the records of electro-physiology do we find a claim for opposite effects from weak and strong currents? It is true that we are cautioned against the depressing effects of long continued applications of even mild currents. But this is not the present point. The short *seance*, with its mild currents, may and probably does afford a simulation of increased vigor, but this is mainly due to the moderate exercise which it gives the muscles and their consequently improved nutrition (*c*); perhaps also in some degree to the mental impressions of the patient. The longer *seances*, with stronger currents, are fatiguing and exhausting in proportion as they are depressing or paralyzing.

Is it not true that the weakest current which can affect a muscle at all, causes a momentary contraction of the muscle; and that the strongest current that can be borne during life, or that can be brought to play upon a still irritable nerve and muscle after death, simply produces a more vigorous effect of the same kind; the contraction becoming continuous in spasm or tetanus? It is never contraction on one hand and relaxation on the other, unless, indeed, other conditions intervene and muscular contractile energy is at an end. As a matter of fact, weak and strong currents act precisely in the same manner, and differ only in the lesser or greater contraction of the muscle which they produce. The process is a uniform one, as indeed it must be, since a purely physical force cannot change its character, and play fast and loose in the mode of its operation.

The treatises on this subject bear ample evidence of the paralyzing effects of electrization when even weak currents are used, as could only be the case for therapeutic purposes. Althaus found that the electric current produced an anæsthetic and paralyzing effect on the ulnar and sciatic nerves. Drs. Beard and Rockwell tell us that "in rhinitis, pharyngitis and laryngitis,"—where only very mild currents are admissible,—"they have for years been accustomed continually to make use of the benumbing effects of electrization" (*d*). Even "weak electrization of the upper part of the neck may arrest respiration," as well as produce spasm of the glottis and of the muscles of inspiration (*e*). Currents necessarily weak, because applied to the neck of "a sensitive young lady," induced anæmia of the brain, with drowsiness and other effects indicative of arterial contraction (*f*). Other authors equally allude to the "paralyzing effects of the constant current" (*g*). From these considerations I hold that there is no evidence whatever that weak and strong currents produce opposite effects, or that one may paralyze and the other stimulate.

DIRECT AND INVERSE CURRENTS.

A great deal has been written about the different effects of direct and inverse currents. Dr. J. Russell Reynolds, in reply to the question, "What current should I use to relieve pain and spasm, the direct or inverse?" answers:—"All I have to say is that so far as I have seen it does not make the smallest difference. Theoretically it makes a very great difference, but practically it makes none" (*h*). Now, I think that the evidence showing that both these currents are paralyzing is

(*a*) Meyer's Prac. Elec. Hammond, p. 87.
(*b*) Weber-Meyers, Ib., p. 88.
(*c*) Drs. Beard and Rockwell.
(*d*) Med. and Surg Elec., p. 123.
(*e*) Ib., p. 133. (*h*) Ib., p. 134.
(*f*) Valentine, Matteucci, Eckhard, Meyers.
(*g*) Clinical Uses, etc., p. 18.

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indisputable. Take the direct current first. A nerve-muscle preparation is prepared. To the middle of the nerve trunk a salt solution or the poles of an induction battery are applied, and in either case the effect is so regulated as just to fail to cause a contraction of the muscle. If, now, the poles of a galvanic battery are applied to the distant end of the nerve-trunk, the P. pole furthest from the muscle, so as to produce a direct current, throwing the lower end into catelectrotonus, the muscle will contract at once. Hence the direct current issaid to increase the irritability of the nerve. But electricity is not nerve force, and nerve force cannot be generated in a mere nerve trunk. The true change in the nerve is not one of increased strength or vigor; it is simply that the feebly paralyzing action of the salt solution or of the induction battery has been supplemented or re-inforced by the additional paralyzing wave of the direct current, and nerve force is for the moment annulled. What is just asserted is nothing new. Thus, "According to Volta, both directions of the current are depressing in their effects" (*a*). Prof. Matteucci found that "the direct current" not only "diminished the excitability of nerves," but produced in them "a temporary paralysis" (*b*). Dr. W. B. Carpenter wrote "The direct current weakens and at last destroys the excitability of a nerve" (*c*). So much for the direct current.

The inverse current produces in the nerve trunk, between the electrodes and the muscle, a condition of analectrotonus, which is admittedly one of "diminished irritability," which term is in itself an acknowledgment of lowered vital activity, which can only be accounted for as a degree of paralysis, and is induced by weak as well as relatively strong currents. Dr. C. B. Radcliffe states of M. Eckhard:—"This very able physiologist has ascertained that so long as the inverse galvanic current is closed it is impossible to produce contraction of the muscle by pinching, pricking or otherwise acting on this part of the nerve . . . . which is consequently in a state of suspended irritability (*d*). This is a state of paralysis, because "a nerve that is deprived of its irritability can neither receive impressions nor transmit them" (*e*).

Drs. Beard and Rockwell say that "in regard to the differential action of the ascending and descending currents there has been an almost infinite amount of shallow observation and impulsive writing." These writers offer ample evidence that the effects in question are due, *not to current direction*, but to *the physical effects of the poles*, at one of which acids accumulate and alkalies at the other.

(*To be Continued*).

(*a*) M. Meyer, p. 57.
(*b*) Braith. Epit., Vol. II, p. 661.
(*c*) Hum. Phys., p. 351.
(*d*) Epilepsy, etc., p. 175.
(*e*) Epilepsy, etc., p 78.

NOTES ON THE CHANGES WHICH OCCUR IN THE EYE DURING THE PROCESS OF DISSOLUTION AND IMMEDIATELY AFTER DEATH.

BY GEORGE STERLING RYERSON, M.D., C.M., L.R.C.S.ED.
Professor of Ophthalmology and Otology in Trinity Medical School.

The opportunities for observation of the eye, ophthalmoscopically, immediately before and after death, are comparatively rare. One must happen on the right moment to make the visit. Consenting friends or the absence of friends are likewise necessary. Insensibility on the part of the patient is also desirable. It happened to me once to meet with this combination of circumstances; it was in this wise. During the winter of 1876-77 I acted at times as locum tenens for the house surgeons at the London Hospital, and particularly for Mr. Jonathan Hutchinson's. It was thus I happened to be in at the right moment. One evening about six o'clock a man was brought in who had been injured by a bale of goods falling on him. He was unconscious and the lower extremities were paralysed—apparently from dislocation of the spine. Respiration gasping; pulse uncountable. Mr. Buckland, one of the house surgeons, suggested that we should ophthalmoscope him, which we accordingly did. The media were clean and transparent. The retina and optic disc were pale. The arteries of the retina were scarcely perceptible. There was an occasional pulsation of the veins, which were irregular in calibre, looked as though they had clots in them, being thick at one point, then very thin. As life ebbed away all

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movement in the veins ceased. A peculiar haziness stole over the fundus obscuring the view of the parts. I have seen some kind of ground glass which looked like it. I do not know whether it began in the lens or in the vitreous. A few minutes later the cornea became wrinkled and nothing more was discernible of the fundus. The pupil was moderately dilated. The man lived for ten minutes after having been brought into the hospital. I do not remember whether there was a post mortem or not. I have never seen any account in which the jerky pulsation in the veins and the apparent formation of clots in them are mentioned. The ophthalmoscopic examination of the eye after death is of much practical value and the most positive evidence of death. It would be impossible for a person to be buried alive, as in a prolonged trance, after such an examination. It could also be used to detect malingerers, such as criminals feigning death to enable them to attempt to escape from prison. Physicians unaccustomed to the use of the ophthalmoscope could determine the matter by concentrating the light upon the cornea with a 2½ inch convex lens (oblique illumination), when the cornea will be seen to be wrinkled, which never occurs during life so long as the fluids are not allowed to escape from the eye.

REGULATIONS FOR ARMY AND NAVY MEDICAL DEPARTMENTS AND INDIAN MEDICAL SERVICE.*

ARMY MEDICAL SERVICE.

Every candidate desirous of presenting himself for admission to Army Medical Service must be unmarried, not under 21 or over 28 years of age. Must produce a certificate of birth from the District Registrar, or affidavit from one of the parents; also a certificate of moral character from parochial minister. Candidate must make a declaration that he labors under no mental or constitutional disease or any imperfection or disability. His physical fitness will be determined by a board of medical officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without aid of glasses. Moderate degree of myopia not a disqualification. Candidate must possess two diplomas, one to practise Medicine and the other Surgery in Great Britain or Ireland, and must be registered under the Medical Act in force at the time of his appointment. Certificates of registration, character, and age must accompany the declaration when filled up and returned.

Candidates will be examined by Examining Board in following compulsory subjects, and the highest number of marks will be distributed as follows: Anatomy and Physiology, 1000; Surgery, 1000; Medicine, including Therapeutics, Diseases of Women and Children, 1000; Chemistry and Pharmacy, 100. Examination in Medicine and Surgery in part, practical operation on dead body, approbation of surgical apparatus and examination of medical and surgical patients at bed side. Eligibility of each candidate for Army Medical Service will be determined by result of examination in these subjects:

Examination in following voluntary subjects for which maximum number of marks will be

For French and German (150 each) 300 marks.
For Natural Sciences . . . . . 300 "

Natural Sciences include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica.

Number of marks gained in both voluntary subjects will be added to total number of marks obtained by those qualified for admission. After passing this examination for admission to Army Medical School at Netley, candidate will be required to attend one entire course of practical instruction on (1) Hygiene; (2) Clinical and Military Medicine; (3) Clinical and Military Surgery; (4) Pathology of Diseases and Injuries incident to Military Service. At the conclusion of this course, candidate required to pass an examination on the subjects taught in the school. If satisfactory evidences of qualification for practical duties of an Army Medical Officer have been given, he will be eligible for a commission as Surgeon. During period of residence at Army Medical School, each candidate will receive an allowance of 5 shillings or $1.25 per diem, with residence, or 7 shillings per diem without quarters, to cover cost of maintenance, and will be required to provide himself with uniform (regulation undress of Surgeon) but without sword.

[Dr. Charles W. Covernton has kindly prepared the above statement in answer to our correspondent. It was unfortunately crowded out of our last month's issue.—ED.]

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MEDICAL DEPARTMENT OF NAVY

much the same as for Army after passing examination at Netley, drafted to Haslar Hospital for a time.

INDIAN MEDICAL SERVICE.

In addition to the requirements mentioned for Army and Navy Certificates of age, moral character and of registration of degrees, diplomas and licenses, candidates will be examined by the Examining Board appointed for the two other branches of service on the subjects previously detailed. Candidates who desire it will be examined in French, German, Hindostani, Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography and Botany.

The Examiners in London will prepare a list in order of merit, with marks affixed on different subjects, to be transmitted to the Professors of Army Medical School at Netley. Candidate has then to attend entire course of practical instruction at Army Medical School before being admitted to his examination for a commission. Allowance per diem at Netley same as for Army and Navy.

AN UNUSUAL STRICTURE OF THE STOMACH.

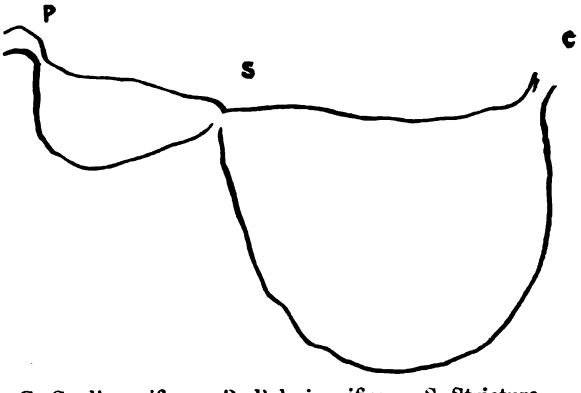
BY G. A. BINGHAM, M.D.,
Pathologist to Toronto General Hospital.

The following notes of the case I have obtained from Dr. Hillier, of Bowmanville, the attending physician :

Miss I., æt. 48 years, died December 2nd, 1887 ; tall, good figure, complexion blonde, good family history. About the age of puberty, an abscess developed in the region of the stomach, ulcerated through that organ and discharged its contents, which were vomited. After this and during the balance of her life she was troubled with dyspeptic symptoms, acidity, flatus, etc. Previous to coming under my care, some six years ago, she had a profuse hemorrhage which completely prostrated her. Some of her physicians diagnosed cancer of the stomach and fixed the limit of her existence at less than six months. She then removed from Michigan (her home at that time) and came to Canada, and since that time until her death she averaged one attack of hemorrhage each year, which usually came on in the autumn. The attacks came on gradually with soreness in the stomach, loss of appetite and finally vomiting. They lasted from three to six weeks, during which time she would have several attacks of vomiting partially digested blood, which would occasionally pass through the bowels as well. She never complained of any severe pain, the pulse ranged between 110 and 130 ; never any great elevation of temperature. During the attack she could not take food of any kind and was fed altogether per rectum, and fortunately she retained large quantities. Convalescence came on gradually.

During the intervals she was able to digest the ordinary diet of meats, vegetables, etc., and took food in sufficient quantities to keep her system in good condition. She was able to take long walks and do light housework, and suffered very little pain at any time, and between the attacks of hemorrhage enjoyed very good health. The last attack came on early in the summer of 1887 and rendered her very weak. For two months before her death, the quantity of food taken by the mouth was small.

Post-mortem appearance.—With the exception of the stomach, the abdominal and thoracic viscera were normal and the body fairly well nourished ; perhaps the calibre of the intestines was slightly diminished throughout. The walls of the lesser cavity of the peritoneum were adherent, and by this means the stomach was fastened to the pancreas behind and the transverse colon below.



C. Cardiac orifice. P. Pyloric orifice. S. Stricture.

There was a marked stricture of the stomach at the point of adhesion to the pancreas. The finger could with difficulty be passed through the stricture. Measuring along the lesser curvature of the stomach the stricture was situated two inches

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from the pyloric and four and a half inches from the cardiac orifice. The pelvic orifice was also constricted to the diameter of the little finger. The walls of that portion of the stomach between the stricture and the pyloric orifice were much thickened, while the cavity between the stricture and cardiac orifice was considerably dilated, the walls thinned and catarrhal-looking on their inner surface.

There was an entire absence of ulceration and the hemorrhages were probably due to a hypercongestion of the cardiac portion of the viscus.

I think it worthy of note that this patient was able, for about 33 years, to digest the ordinary quantity and quality of food, without any marked discomfort, and was thus enabled to maintain a fair degree of health. Judging from the literature of the subject, stricture in this location is a rare lesion.

Correspondence

OUR LONDON LETTER.

(From Our Own Correspondent.)

CLINICAL NOTES.

In cases of acute laryngitis in the adult, Dr. Wolfenden, of the Throat Hospital, prescribes a calomel purge, followed by the same drug in small and frequent doses combined with Dover's powder, at the same time administering the following if the pulse be full: ℞.—Tinct. aconiti, ♏xv; aq., ℥ij. Sig.—A teaspoonful to be given every fifteen minutes for four or six doses, then every half hour for several doses, and finally every hour or two hours; the time between doses being lengthened as soon as the skin appears moist and the heart's action reduced. When the disease has advanced and secretion is being poured out, the following mild expectorant is prescribed: ℞.—Ammon. carb., grs. v; tinct. scillæ, ♏x; tinct. camph. co. ♏xv; syr. zingib., ℥j; infus. serpentar. ad., ℥j. Every four hours. If the cough is very troublesome, ♏ij or ♏iij of liq. morph. hydrochlorat. are added to the above. Locally, he recommends cold compresses of ice or the Lieter coil.

In cases of sub-acute laryngitis he prescribes the following: ℞.—Tinct. benzoin co., ℥iv. Sig.—A teaspoonful in a pint of hot water for each inhalation, night and morning. The patient is cautioned not to go out of doors for at least half an hour after using the inhalation. Trochisi krameriæ are also ordered, each lozenge containing grs. ij or iij of the ext. of rhatany.

In some cases the following vapor is preferred: ℞.—Olei eucalypti, ℥ij; magnes. carb. levis, grs. lx; aq. ad., ℥iij. To be used in the same manner as the above.

In chronic laryngitis, in addition to any constitutional treatment required, he usually prescribes the following vapor: ℞.—Olei. pini. sylvestris, ℥ij; magnes. carb., levis, grs. lx; aq. ad., ℥iij. Sig.—A teaspoonful in a pint of hot water for each inhalation, night and morning, also troch. krameriæ. In tuberculous laryngitis he prescribes a vapor of benzoin and chloroform, as follows: ℞.—Tinct. benzoin co., ℥j; chloroform, ♏iv, in a pint of hot water for each inhalation, and as a local application uses solutions of lactic acid, varying in strength from 20% to 60%, and applied by means of a brush, twice a week. In granular pharyngitis he finds the galvano-cautery the most satisfactory treatment.

In the treatment of those troublesome cases of nasal polypi, which are so apt to recur, Dr. Greville Macdonald, of the same hospital, is markedly successful in obtaining curative results. His method is removal of the polypus by means of Mackenzie's écraseur, which he uses as follows: The meatus being well opened by means of a Thudichum nasal speculum, and the light thrown into the nares, the écraseur is passed in so that the wire-loop is kept close to the septum, until opposite the polypus, when it is turned so as to rest on the floor of the nose. The loop now being under the polypus, it is surrounded by the wire by drawing the instrument upwards and somewhat outwards until the loop is felt to be well up to the base of the peduncle of the polypus. The wire being now tightened the polypus is cut through, and is easily removed by forceps; the point of attachment being subsequently cauterized by means of the galvanuo-cautery.

In all cases of hypertrophy of the middle turbinated bones, he relies upon the galvano-cautery or the application of chromic acid, either of which, with persevering treatment, prove successful. In chronic atrophic catarrh of the oro- and naso-pharynx, he prescribes an alkaline lotion of the

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following strength: ℞.—Sod. bicarb, grs. xv; acid carbolic, grs. ij; aq. ad., ℥j. Sig.—A teaspoonful to be added to half a teacupful of warm water, and used by means of posterior nasal syringe, or sniffed up the nose night and morning. The following being also thoroughly applied to the anterior and posterior nares and pharyngeal walls twice a week by means of a brush. ℞.—Iodoform, ℥j; ether, ℥j.

In chronic suppurative catarrh of the ear, where the discharge is slight, the perforation considerable and granulations absent or nearly so, Dr. Macdonald prefers the dry treatment, and considers pulv. acid boracic superior to all other powders. He orders the ear to be thoroughly cleansed by syringing, each time previous to the application of the boracic acid, which is to be blown into the ear through a quill or glass tube. This is repeated once daily at first, and after the discharge is consideraly diminished, every third day will prove sufficient.

CANADIAN.

OUR NEW YORK LETTER.

From our Own Correspondent

NEW YORK, March 20th, 1888.

Dr. Robinson treats epithelioma, where the disease has not progressed far enough to involve the glands, in the following manner, and promises a good result. Make a paste—"Marsden's paste." ℞—Ac. arseniosi; gum acaciæ āā ℥j. Sig. Apply enough to cover diseased tissue by means of rubber adhesive plaster, and leave on for about sixteen hours. Then wash with warm water and apply a simple dressing as ung't. zinc. ox., or vaseline for about a week. If all the pathological tissue be not destroyed, make further applications in the same way.

An interesting discussion on the question of treatment of syphilis in the primary stage, took place at the Academy of Medicine the other evening. Dr. Bronson read a paper advocating the treatment of the initial lesion locally by means of mercury, as soon as it became manifest. His belief was that the disease is at first a local one, and that it extends through the lymphatics and glands in proximity, to the general system. His plan was not to excise the chancre, or attempt to abort the disease by internal medication, but to bring the mercury either by hypodermic injection, or inunction into immediate contact with the syphilitic virus of the chancre, and extending the injections into the lymphatics and glands through which the virus could reach the general system. By this means the syphilitic poison, be it a germ or anything else, is met and combated before it has reached the general constitution. He admitted he had never been able to successfully employ this method, but thought that due to the patients on whom he had tried this treatment, not conforming to his directions. Theoretically, he thought the plan the proper one, and believed it would be practically demonstrated. Dr. R. W. Taylor agreed with Dr. Bronson, that the disease was at first a local one—but the question was as to how much of the surrounding tissue was involved. He did not think syphilis had ever been aborted by cauterization, excision or any local treatment, because it was impossible to reach all of the involved cells; if the chancre were treated locally, large amounts of mercury should be used. He did not believe in the efficacy of the treatment. He said it was unwise to treat the disease before the secondary manifestations, because the disease afterwards acted disorderly, and the patient's mind was always in a state of uncertainty. Mercury acted by causing a fatty degeneration of the syphilitic cells, and hence it was irrational to give mercury, internally at all events, until these syphilitic cells existed; until secondary symptoms appeared. Dr. E. L. Keys thought the disease a general one from the start, with the chancre a local manifestation, and hence. he had no belief in any topical application, or medication with the idea of aborting or curing the disease.

The examinations in the different medical colleges take place much earlier here than in Ontario. Bellevue Hospital Medical College graduated, a few weeks ago, about one hundred and fifty, with only seven candidates rejected. The term spent in college is nominally three sessions, and the majority attend three sessions, but a great many graduate in two years. The University of New York graduated one hundred and fifty-seven. The College of Physicians and Surgeons, which is so heavily endowed by the Vanderbilts, is undoubtedly the best medical college here, and their standard is much higher than that of either of the others. Three years of

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nine months each is compulsory, and generally about 25% are "plucked" every year; but still they have much the largest class, the students this year being about eight hundred in number. I think Canada has just reason to be proud of her medical colleges, and of her high standard of medical education.

CANUCK.

Selected Articles.

THE SIGNIFICANCE AND LOCALIZATION OF PAIN IN PELVIC DISEASES.

BY HENRY C. COE, M.D, NEW YORK.

Considering the fact that local pain is the symptom which usually impels a woman to seek the aid of the gynecologist, and that the relief of this pain is the object aimed at in most of his manipulations and operations, it would seem as if our information on this point ought to be more definite than it is. However satisfactory it may be to the surgeon to contemplate a neat and artistic bit of plastic work upon the genito-urinary tract, or to insure a rapid and easy convalescence after laparotomy, if the patient experiences but little mitigation of the pain, to be rid of which she submitted to the operation, in her opinion, at least, it has not proved eminently successful. This may be a narrow view to take of the subject from a scientific standpoint, but it is a practical one. In any branch of medicine the most intelligent patient measures the skill of the physician by his ability to afford prompt relief from present suffering, and it is difficult to convince her that there is any improvement in her condition so long as the pain persists. Pain is the popular indication of existing disease, the seriousness of the latter being proportionate to the severity of the former. This is especially true in pelvic troubles, where the subjective element is so prominent; that patients are constantly at fault in their inferences is a matter of common experience. How often does epithelioma of the cervix make fatal inroads without giving rise to much more pain than does a simple displacement! The inability of the average patient to describe clearly, and to localize, pelvic pain will be apparent on reviewing the vague symptomatology recorded in hospital and dispensary case-books; nor is the connection between the symptoms and the local condition always established by the vaginal examination. The question has often presented itself to my mind: If the true origin of this pain is obscure and ill-defined, how can one hope to remove it by treatment directed more or less at random? It is greatly to be regretted that this subject has not received more attention from neurologists, whose studies would naturally lead them to view it from a less materialistic standpoint. It certainly furnishes as legitimate a field for their investigation as do diseases of the central nervous system. It is with some trepidation that I bring this subject before the society, because I am conscious of the fact that you must regard with a certain degree of suspicion the off-hand manner in which gynecologists explain nervous symptoms, which you know to be by no means so easy of elucidation. However imperfect this paper may be, I trust that it may at least provoke a discussion which will be of peculiar value, in that it may tend to throw new light upon the obscure subject of pelvic pathology. The matter is naturally considered under two heads, the subjective and objective—the significance of pain as described by the patient, and its localization by the physician. Reflex pains will be discussed separately. It is unnecessary to call attention to the fact that it is a delicate and difficult matter to decide from a woman's own statement concerning the exact character and severity of the pain of which she complains, since there is a common tendency to exaggerate this symptom for which we may not make due allowance until after several interviews. Again, her ability to describe its exact character, site and mode of occurrence, is usually limited. Certain pains, such as back-ache, "bearing down" sensations, etc., are so vague and general that we cannot assign any special importance to them except in connection with more definite pelvic symptoms. Even the pains which are commonly regarded as more or less characteristic of a certain pathological condition are associated with other conditions of a widely different nature. Let us glance at a few of these pains which are sometimes referred to in the text-books as almost pathognomonic, and see if they cannot be reduced to a common basis. The throbbing pain of acute inflammation is excluded as possessing no features peculiar to the region of the pelvis. Among these are constant, aching pain over the lower part of the sacrum, shooting pain in the ovarian region, which is subject to exacerbations just before the menstrual period, and the peculiar "gnawing" pain in the pelvis which accompanies carcinoma uteri. The subject of dysmenorrhœa would be an interesting subject for discussion, especially with the view of determining how much of the pain is of uterine, and how much of ovarian, origin, but to treat it at length would lead us away from the main question.

Chronic pain over the sacrum (as distinguished from the back-ache so common in women) seems to point quite constantly to some morbid condition of the internal generative organs. It is to be carefully distinguished from purely referred pain similarly located, but having more of a neuralgic character, or from that due to direct pressure on

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the sacral nerves. This symptom is indicative of some lesion in the posterior half of the pelvis, and it has seemed to me that it is nearly always referable to subacute or chronic inflammation of the perimetric tissues. It is, of course, noted in connection with retro-displacement of the uterus, prolapsed ovaries, and malignant disease; but a careful study of such cases will generally show that it is most constant and severe when these conditions are associated with inflammatory processes in the peritoneum, or connective tissue, or in both. With reference to the latter, "it by no means follows (to quote from Mundé's 'Minor Surgical Gynecology') that the plastic exudation is of great amount, forming an actual tumor." "As a rule," the author adds, "sacralgia increases in proportion to the size and extent of the exudation." This explains why pain in the sacrum is so common in connection with acquired anteflexion, where there is no question of direct pressure on nerves; the cause is to be found in the parametritis posterior which precedes, and leads to, the displacement. It explains, moreover, why adhesion of the retro-flexed uterus is associated with so much more constant and severe pain than is simple retro-displacement, without imprisonment of the organ. We can hardly attribute the pain to direct pressure on the sacral nerves, because the rectum is interposed and Barnes' explanation seems rather forced. This author (Diseases of Women, page 105) says: "The pain is probably not due so much to direct pressure of the body of the uterus, even when enlarged, upon the sacral nerves, as to the indirect pressure occasioned by the accumulation of hardened fæces in the rectum." The rectal symptoms due to the mechanical pressure of the fundus are unmistakable, but they are clearly localized, are not continuous, and are easily distinguishable from the deep-seated aching pain which results from chronic para- and perimetritis. From these brief statements it seems fair to assume that when a patient states that she has a more or less continuous, aching pain referred to the lower part of the sacrum, but seated deeply within the pelvis, we are justified in assuming that it is directly due to a subacute or chronic perimetric inflammatory process in the posterior pelvic fossa, which may, or may not, be associated with a retro-displacement or tumor. In other words, the pain is due principally to the inclusion of sympathetic nerves in the exudates or adhesions, and not to direct pressure on the sacral plexus. This will appear more plausible on studying the effect of such adhesions when situated in the broad ligaments.

In selecting as another fairly typical variety of pelvic pain, that due to malignant disease of the uterus, it may seem as if I had made a serious omission in not mentioning laceration of the cervix. But, it must be evident that not only is the cervix a relatively insensitive region, but that laceration is only one link in a pathological chain, so that by itself it cannot be regarded as giving rise to any distinctive symptoms.

The popular idea is that commencing epithelioma of the cervix is almost invariably accompanied by such pain as that described by Rigby, i. e., "A sudden, sharp, burning dart of neuralgic severity, always proceeding from one spot, and sometimes transfixing the whole pelvis." From what we know of the comparative poverty of the cervical tissue in nerve-filaments, we are forced to question its frequency on anatomical grounds alone; in this we are supported by the clinical evidence. Pain (to quote from Hart and Barbour) "is not present so long as the disease is limited to the cervix; hence, it is of no use as a diagnostic of carcinoma of the cervix in its early stage unless the cellular tissue has been at the same time involved." Hewitt (Diseases of Women, page 127) expresses the same thought when he says: "The pain due to cancer frequently arises from local attacks of peritonitis." In other words, the pain in this case has the same origin as in the former condition, although it is more severe, neuralgic and intermittent. Moreover the patient is more able to localize it, since it is at one time sacral, at another hypogastric, is sometimes described as "a dull, gnawing pain localized in the pelvis or back," sometimes as "a sharp pain, shooting through to the back or down the thighs to the knees." The latter points, of course to direct pressure on the nerve-plexuses by secondary growths.

Carcinoma of the body of the uterus early gives rise to pain, just as does disease of the cervix after it has extended to the body. Sir James Simpson describes it as "slight and intermittent perhaps, at first, but soon reaching a high pitch of intensity, at which it continues for an hour or two, and then gradually subsides." Sarcoma, on the contrary, often occasions remarkably little pain. Can it be because in the case of carcinoma the intra-muscular nerves are more directly affected by the inroads of the disease than occurs in sarcoma of the endometrium? The acute or subacute peritonitis, which invariably attends the progress of carcinoma, readily explains the more severe, continuous and diffuse pains which mark its later stages. Here again, it may be assumed that the pressure of exudates on included nerve-filaments is an important causal factor.

It remains to consider a third common variety of pelvic pain, which is frequently spoken of as "ovarian." It is variously described as "shooting," "darting," "sickening," and is usually located in the left groin or iliac region, is deeply seated, and is frequently associated with referred pains in the sacral and sciatic nerves, and mammary neuralgia, all of which are aggravated at

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the commencement of the menstrual period. Pain of a peculiarly sharp, lancinating character in the same region has been ascribed to an accompanying affection of the tube, but it presents no peculiarities that could not be explained by localized peritonitis. Now, as is well known, the ovarian region is the seat of various reflex pains associated with disease of the uterus, of the opposite ovary, or even of the rectum. so that locality alone does not give a positive indication of disease of the gland. The true ovarian pain is probably only clearly defined in the case of the enlarged and prolapsed (but non-adherent) organ during defecation or coitus, when it is directly subject to mechanical pressure. But, when diseased ovaries and tubes are buried in adhesions, the characteristic pain (if there is any) is masked by that due to the adhesions. This is an extremely important practical point, which has only recently received careful attention. It has been shown by Hegar that cicatricial nodules in the broad ligaments may produce nervous symptoms identical with those referred to chronic oöphoritis, even including the exacerbations at the menstrual periods. If this is true, it seems to be a fair inference, as I have repeatedly urged in discussing this subject from a purely gynecological standpoint, that in the majority of the cases in which we assume that pain is of intra-ovarial origin, it is really due to pressure on the nerve fibres, *before* they enter the ovary, and not to pressure on the terminal filaments within the stroma, in consequence of general induration of tissue. If the pain was principally of centric origin it would not only be constant, but it would be unrelieved by electricity or by the separation of peri-oöphoritic adhesions, since the morbid conditions within an ovary would remain unchanged. We shall have occasion to refer to this again under the head of treatment.

I have alluded very briefly to three varieties of direct pelvic pain, which differ not only in their location, but in their character and mode of occurrence, since they seem to illustrate most clearly the point which I wish to make, viz., that when a patient describes a chronic and more or less continuous pain situated over the sacrum, the hypogastrium or the ovarian region, we are safe in inferring that, although there may exist disease or displacement of one or more of the pelvic viscera, the chief causal factor in the accompanying para and perimetritis; that is, it is due more to pressure upon, or irritation of, the nerves within the pelvic connective tissue and peritoneum, than to irritation of their terminal filaments within the generative organs, or to the mechanical pressure of the latter upon adjacent nerve-trunks.

Having found that the significance of pain as described by the patient is vague and ill-defined, it remains to be seen if we can locate it more exactly by a physical examination. There are several natural obstacles in the way. In the first place only the cervix uteri is directly accessible to the touch, the rest of the genital tract being felt through the interposed vaginal vault and abdominal wall, with other strata of tissue that lie between. Then, it is a matter of common observation that certain regions are peculiarly sensitive to pressure under conditions which, so far as we know, are perfectly normal Firm pressure in the anterior, posterior, or either lateral fornix frequently gives rise to considerable pain, which in hyperæsthetic subjects may find forcible expression. Whatever may be the anatomical explanation, this pain evidently originates within the pelvic tissue proper, perhaps in the peritoneum. With the exception of the sensation which a patient describes when pressure is made upon an ovary displaced into Douglas's pouch, I can not recall any variety of pelvic pain which can be reproduced, as it were, by the pressure of the examining finger. Thus, by pressure on a retro-uterine exudate we cause pain, but it is referred rather to the point where the pressure is made; it is not an exaggeration of the diffused aching pain, of which the woman complains. Neither can we be said to reproduce the lancinating pains of malignant disease when we manipulate the cancerous uterus. The cervix itself is, as has been said, comparatively insensitive, and the cases in which direct pressure on the "cicatricial plug" in the angle of a laceration occasions direct and reflex pains are less common than is generally supposed. Exact localization of the pain in this condition is exceedingly difficult, because if the tear has involved the vaginal fornix, the resulting cicatrix in the latter may be quite painful. But, it is the secondary inflammation in the broad ligaments which give rise to the most marked pain, which is often referred to the ovarian regions; the painful bands, or nodules, when situated at the bases may be located quite distinctly through the lateral fornices. However, there are usually other complications (endometritis, hyperplasia, etc.) which doubtless in themselves cause more or less pain. The practical point is that we may reverse the pathological processes—repair the laceration, cure the endometritis and subinvolution—yet the pains, direct and reflex, persist. In many of these cases it seems as if we could establish a direct connection between their persistence and the persistence of the indurations in the broad ligaments.

The most difficult task is that of trying to establish by the bimanual examinatio the connection between pelvic pain, and obscure, ill-defined masses of exudates high up in the broad ligaments, which can often be mapped out only when the patient is placed under the influence of an anæsthetic, and then any estimation of the amount of pain is out

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of the question. The great difficulty is that not only are these masses not directly accessible to the touch, but even when they consist of tubes and ovaries, these are so fused together and buried in adhesions that their original shape is lost, while there can be little hope of developing any characteristic "ovarian" pain by making pressure upon them. Circumscribed indurations in the broad ligaments are often found at autopsies, so situated that they could not have been detected during life, yet these may have given rise to marked nervous symptoms which were referred to an organ to which the indurations were adjacent. Without multiplying examples, it will be evident that a physical examination affords us but little aid in ascertaining the exact site, or origin of pelvic pain.

Before proceeding to make a few practical deductions, a brief reference may be made to some of the so-called reflex pains of pelvic origin. In my opinion gynecologists show a tendency to exaggerate their frequency. I agree with Dr. Dana ("A Clinical Study of Neuralgias, and of the Origin of Reflex or Transferred Pains," reprint, page 24), that vertex pain "is often an indication simply of anæmia,"—for out of twenty-five patients who attend my clinic in an afternoon, probably twenty will confess that they have cephalalgia, which can often be explained without reference to their local condition. I can also subscribe to the statement that "pelvic irritations are felt most frequently in the upper and short branches of the lumbar plexus, next perhaps in the intercostal nerves and upper cervical nerves," etc. Reflex arthralgiæ of pelvic origin I have seldom observed. I was not aware that sciatica was rare in connection with ovarian trouble. Mundé states that "a peculiar pain in the hip, somewhat above the ischiatic notch, is frequently indicative of ovarian disease." But, he adds (rather vaguely) that "a blister over the painful spot may relieve the pain and prove it to be merely sciatica."

Reference has already been made to pains in the lumbo-sacral region, radiating down the thighs, which some writers ascribe to direct pressure on the nerves from exudates or displacements of the uterus. This cause must certainly be rare. It is more probable that such pains are reflex in character. And this leads us to the question of pains referred to, but not originating in, certain regions within the pelvis itself, the significance and localization of which it is extremely difficult to determine. Of these the most complex is irritation in the vicinity of the ovary from disease of the opposite gland, of the rectum, uterus, or even from the presence of small indurations in the adjacent peritoneum. "Ovarian neuralgia" is a loose and convenient term in this connection. It is only necessary to allude to the sympathy which exists between the urinary and genital tracts in order to explain the interchange of pains between them. In fact, after studying the intricate relations of the pelvic sympathetic nerves we can readily imagine the possible combinations which may exist. Moreover, the conditions are too complicated to be explained by reference to Mr. Hilton's beautiful law. In general, it may be said of these reflex pelvic pains that, while there is no doubt as to there frequency, their is much uncertainty as to their origin. We may refer them to some lesion of the cervix, corpus uteri, or ovary, but positive proof is quite as often absent as it is present. In view of the great richness of the nerve-plexuses around the pelvic organs as compared with the terminal filaments in their substance (compare the cervix, the endometrium, and the ovarian stroma), it seems justifiable to refer most of the reflex, as well as the direct pains, to localized inflammatory processes in the parametric tissues, which may, or may not, be capable of detection. In addition to pain referable to coarse lesions, I need only hint at the subject of functional troubles in order to open up a field for discussion which is comparatively fresh.

The practical deduction which I desire to make relates both to prognosis and to treatment, and may be stated briefly as follows: Since we are seldom able to locate the exact site even of the most characteristic pelvic pain, we should be somewhat guarded in our promises to remove it by modification, or removal of, the supposed cause. Thus, we may repair a lacerated cervix, and yet the pains, direct and referred, are not removed, because we did not discover the true cause; or (and this is far more important), we may extirpate an ovary for the relief of pain apparently located in that organ, yet the same sensations persist. Without dwelling upon the latter theme, which has become rather trite, let me in passing quote from one of the most enlightened and conservative of German gynecologists (Winckel op cit.) who, in commenting upon oöphorectomy when performed for the relief of pain alone, says (following Hegar) that the operation should not be performed "when the broad ligaments are contracted and rigid, and when nodules and indurations are found in their structure, because it is possible that these abnormalities, which cannot be removed by the operation, may be the chief cause of the neurosis." Again, he remarks: "According to the law of eccentric projection toward the periphery, the sensation of pain which is felt in the ovary will persist after the latter has been removed, as we so often observe in other nerves, and in other parts of the body."

While desirous of carefully avoiding any criticism of the value of gynecological operations, I would call attention to the fact that many of those performed for the purpose of ameliorating

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the symptom *pain*, must continue to be more or less empirical, until we attain such refinement in diagnosis that we are able to refer this pain to a certain definite, circumscribed area in the pelvis. Whether the plan advocated by Dr. Polk (in ercent papers read before the New York Obstetrical and the American Gynecological Societies) of separating the adhesions around the displaced uterus and appendages, will prove to be of permanent benefit to the patient as regards the relief of pain, is still doubtful. There is some reason to think that it may be, although the risks involved in the performance of this operation are scarcely less than those attending removal of the ovaries and tubes. But into this question I do not intend to enter here.

There is a therapeutic agent, the value of which is beginning to be appreciated by gynecologists, and which should be especially interesting to you, because you, of all the specialists, are most familiar with it—I mean the use of electricity. I do not refer to its use as an actual local application to diseased organs and tissues, but to its employment for the relief of pelvic pain. That it has a future in this direction will appear from the testimony of prominent gynecologists as to the sedative effect of galvanism in oöphoralgia, and more recently from that of Apostoli, of Paris, in his paper on the use of the "tension faradic" current in cases of pelvic exudation. The application of electricity in the one instance in the case of recognized adhesions of the appendages, and in the other in inflammation of the perimetric tissue, and the benefit obtained in both instances, may be regarded as a practical clinical argument in favor of the theory of the origin of pelvic pain which I have suggested in this paper.

This is not a new theory, of which I have given a mere outline. I am fully aware of the imperfect manner in which it has been presented, and of the fact that I may be open to the criticism of trying to materialize pain, so to speak. But do not gynecologists practically assume to do this when they direct their treatment to a single gross lesion in one of the organs?

The following is a brief resumé of my deductions:

1. That pelvic pain has its origin more often in the perimetric tissues than in any particular organ, being due to irritation of nerve-trunks rather than nerve-endings.

2. That the reflex, or transferred, pains commonly referred to certain lesions in the pelvic organs, may radiate from inflammatory foci in the peritoneum or connective tissues surrounding those organs.

3. That operations upon, or complete removal of, such diseased organs may fail to remove the pain for the reason stated.

4. That this pain, like other nerve pains, may be sensibly relieved by the proper application of electricity.—*Gaillard's Med. Jour.*

THE IMPORTANCE OF LOCAL TREATMENT IN DIPHTHERIA.

It is not needed that mention should be made in this association of the wide prevalence of diphtheria or of the great fatality attending it. Neither would I be thought to assert that local treatment is the most important part in the conduct of this dread disease. Surely it were better to entirely lose sight of local requirements than to be lacking in that care and alertness needed in the successful general medication of each case.

The thought I would present here is that efficient local treatment is always indicated in the early stages of the disease, and often of avail in the more advanced complications. It is to be regretted that the physician is not called sooner in many instances. Often not until the system is profoundly impressed by the diphtheritic virus is he summoned, and then asked to combat, not an incipient fire, but a conflagration rapid in its advance and destructive in its tendency.

First of all, I believe that diphtheria is in its attack a local disease, most prone to invade a mucous membrane denuded of its epithelium. How the specific poison first finds a foothold we know not, but probably a direct contact is quickly followed by growth and absorption. As in the well-known phenomena attending successful vaccination, the systemic infection is quickly followed by increased local disturbance and exudation, most likely at the point of the primary infection. This new development, the false membrane, in its turn becomes a distributing centre for all parts of the system.

If it were possible to antagonize the attack at the beginning, when the diphtheritic impression is first received, the problem of cure would be easily solved. And here let me say parenthetically, that I believe it is good practice to use, frequently and thoroughly, astringent and antiseptic sprays and applications with children who may not show evidence of diphtheria, but who are and have been exposed to it by living in the same house, or are in any known way in the line of invasion. Just as an intact mucous membrane completely covered by epithelial scales may be securely protected from attack, so I hold that, in cases where a denuded membrane offers an invitation for the ready reception of the diphtheritic germ, we may afford an artificial protection, or by proper means destroy an already present foe.

Yet it is not of prophylaxis that this essay is to treat, but of efficient conduct in cases where the disease is present. These conditions exist: 1, a

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local specific inflammation; 2, a general septic condition, at first caused by, and afterwards aided by, absorption from this local inflammation.

While many eminent practitioners depend upon general medication, and some have quite abandoned all forms of local treatment, it is evident that all indications are not met unless attention is given to the local manifestation of diphtheria. If the disease is of local origin, if the systemic infection is constantly receiving fresh re-enforcement by means of the ready absorption of the specific poison—aid the system by all means to throw off the incubus of infection, but also limit if possible the further supply.

How shall this best be done? This depends upon the amount of local progress. I do not hesitate to say that I have seen a local diphtheritic exudation melt away in three or four days under proper local applications, the system being at the same time well guarded. But were these true cases of diphtheria? This much in affirmation: Several of these of which I speak were in families where one child had just died from diphtheria, where the symptoms were all indicative of diphtheria, and where there had been every opportunity for infection.

An old cry is that a physician who professes to conduct his cases of diphtheria to a favorable termination is an alarmist, and his cases are simply follicular amygdalitis. Such a pitiable antagonism is unworthy a scientist. Mistakes do occur, and it is better they should be on the safe side; but I am willing to call a case diphtheria where I find that the child, having been exposed to the contagium, has anywhere upon the mucous membrane of the upper passages a thick, continuous yellow exudation, closely adherent to the mucous membrane, with a tendency to necrosis and sloughing, especially if the pulse is quick and weak and the temperature above normal. It is possible that such a case is not diphtheritic, but it is not probable, and we deal with probabilities. The differences in local appearance and general condition between a follicular exudation and the characteristic false membrane of diphtheria are usually so marked that the physician need not be mistaken, and if he does err, let him give the child the benefit of the doubt.

Beyond this class we have another or advanced degree of the same class in which there can be no doubt as to the type of disease. We find it when called two or three days after the first attack. No longer is there now a small patch confined to the tonsil, or to a small part of the pharyngeal wall or soft palate. The natural guardians of the child have slept and the insidious enemy is in full possession. A dense dirty-yellow and sometimes disintregating exudation is found closely attached to the natural tissues in some places, and in others hanging in loose shreds, while the naso-pharynx is filled with detached portions of membrane, retained mucus, and sometimes blood, and poison from this septic hot-bed is being rapidly absorbed and carried to the most remote parts of the little frame. Each of these classes of cases demands special and distinct local management.

Let us consider the first class, where the membrane is yet small in extent and of recent formation. Can we close the portals of the absorbents and render the existing local focus of disease inert? After experimenting with many formulæ, I have for several years renewed my confidence in the mixture of equal parts of glycerin and tincture of chloride of iron. The most fashionable and really excellent practice of using bichloride of mercury provides for antisepsis, but not for the equally important matter of astringency. But little manipulation is needed in these early cases. A cotton-covered probe is by far the best instrument, and with it the solution is not merely brushed over, but pressed against, the point of attack There is no necessity of hurting the child if care is taken, but, on the other hand, I retain a vivid picture of the good old doctor, conscientiously bound to do something, his spectacles awry, plunging a "swab" at random down the throat of a kicking child, or through the clinched teeth, scraping the mucous membrane from the roof of the mouth by the good help of the ubiquitous tablespoon. By proper tact the application may be made easily, and, if it is repeated frequently—*i. e.*, every two hours—its efficiency will soon be demonstrated.

In the more advanced class of cases much more than this is needed. The extent of false membrane is greater, it is more difficult to reach, and the upper respiratory passages are obstructed. First, all of the detached membrane and *débris* should be removed by the syringe, and there is no better method of doing this than that described by Dr. Jacobi in the discussion following Dr. Billington's able paper on "Local Treatment in Diphtheria" (*Medical Record*, April 9, 1887). A tepid but weak solution of common salt is an effective cleansing agent, after which a spray of bichloride-of-mercury solution can be used. The spray should be used warm, and to protect the nostril I often pass over the end of the spray-tubes a small piece of rubber-tubing and roll it up, so as to fit the nostril fairly well. There is no use in attempting to employ the more direct and potent applications by means of the probe in these cases. Many other agents have been used by spray and inhalation or insufflation, such as carbolic acid, lime-water, weak solutions of iron, etc. These are useful, but time forbids speaking of all.

When there is great irritation from laryngeal involvement—if the exudation is not too great—the vapor from slaking lime often gives relief.

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I should greatly exceed my limit of time did I attempt to discuss the relative value of tracheotomy and intubation. The opportunity is given, however, to call attention again to what I believe to be an important addition to the ordinary procedure in tracheotomy—*i. e.*, to fill the larynx above the artificial opening with a pledget of cotton or small sponge saturated with an antiseptic solution, to prevent, if possible, the extent of the local disease by continuity of surface.

Let me repeat these thoughts: 1. Diphtheria is in its incipiency a local disease. 2. Local treatment is important, an aid to, but never a substitute for, the careful general medication and cure. 3. The exact means used in local treatment may not be important, but the end to be accomplished is the speedy sterilizing and disintregation of the diphtheritic exudation, without injury to the adjacent tissues. 4. The local treatment must be conducted promptly, persistently, and carefully.—Dr. Porter, in N. Y. *Med. Jour.*

ABDOMINAL SECTION FOR DISEASE OF THE UTERINE APPENDAGES.

Dr. Charles B. Penrose read a paper on this subject, founded on eleven cases, all successful. The operations had all been performed in 1887, and the patients were at present well and able to attend their various duties.

In five of the cases the appendages were removed on only one side. In one of these (a case of pyosalpinx and cystic ovaries) the author had found it impossible to remove the left tube and ovary. They were firmly adherent in a knot on the side of the uterus, and the uterus was bound down in the hollow of the sacrum. In the other cases of unilateral removal he had intentionally left the appendages upon one side. Except in the case of dermoid cyst, the women were young and desirous of having children; and at the time of operation he could discover no sign of any pathological condition in either the tube or ovary. He was aware of the fact that in cases of tubal disease it was often unwise to perform a unilateral operation and to leave even an apparently healthy tube, as, in many cases, it subsequently became diseased from an infecting focus in the uterus.

Though sufficient length of time has not yet elapsed to come to any definite conclusion with regard to his cases, yet so far he had had no cause to regret having left the sound tubes; and in one case the patient had become pregnant since the operation.

A point of interest in connection with the first case (salpingitis and cirrhotic ovaries) was the length of time during which the patient was fed by the rectum. She began to vomit as she recovered from the influence of the ether, and she continued to vomit everything which was administered by the mouth for thirty-six days after the operation. There was no apparent cause for this excessive vomiting. The operation was simple, and was not followed by any obvious symptoms of peritonitis. The rectal injections, by means of which this woman was nourished for over a month, consisted of pancreatized milk, eggs, and whiskey. Two-thirds of a quart of milk, one egg, and three ounces of whiskey were administered in four or five doses during the twenty-four hours. During this prolonged course of rectal feeding she lost many pounds in weight. No food at all was taken by the mouth; the very small quantities which were occasionally administered experimentally, were always rejected immediately. When she finally became able to take food by the mouth it was necessary to give it in the form of twenty-drop doses of soup or beef tea. In the table he had made no distinction among the different forms of non-purulent inflammation of the Fallopian tubes. All thickened, enlarged, adherent tubes which did not contain pus. he had put down as cases of salpingitis.

In all the cases of pyosalpinx there was a history of repeated attacks of pelvic pain and inflammation, which often confined the patient to bed for several weeks. In two of the cases of pyosalpinx there was also ovarian abscess. In these cases the abscess cavity in the tube communicated directly with the abscess cavity in the ovary, and the origin of the ovarian abscess was obvious. In case VII (salpingitis and abscess of the ovary), however, there was no pus in the tube. The tube was enlarged and adherent, and its fimbriated extremity was closed; and it did not communicate with the cavity of the ovarian abscess. The ovarian abscess contained about half an ounce of pus and had a distinct pyogenic membrane. The author thought that abscess of the ovary was of more frequent occurrence than works upon gynecology admitted And, though it probably was in general due to oöphoritis caused by inflammation of the tube, yet it was not always associated with pyosalpinx. In two cases of double pyosalpinx (cases V and IX) a thin purulent fluid was found in the peritoneal cavity, and the intestines were found to be deeply congested when the abdomen was opened. The patients had probably been suffering for some time with general chronic peritonitis, the patients having only complained of pelvic pain and pain in the back. The chance that such a condition might occur in connection with pyosalpinx was a strong argument in favor of removing these abscesses by abdominal section, instead of evacuating them by the vagina, as was so often done.

The danger of assuming any case of peritonitis in a woman to be idiopathic, without a thorough vaginal examination, was obvious. He had the

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report of a case which had occurred recently, where the patient was treated for several weeks for idiopathic peritonitis, and an operation done a few hours before death revealed double pyosalpinx and a ruptured ovarian abscess.

In six of the cases reported, an abdominal drainage-tube was used. The average time of convalescence in these cases was no longer than in the cases where a tube was not introduced; and the severity of the symptoms following the operation —the elevation of temperature, the rapidity of pulse, and the pain—were much less marked in the drainage-tube cases than in the others. The absence of pain in the drainage-tube cases was probably in part due to the fact that most of them were cases of pyosalpinx, where the tissues which were ligated and cut were so far degenerated that their sensibility was much diminished. He thought that the danger of abdominal hernia following the use of a drainage-tube had been exaggerated. In one of his cases there was now a small hernia, but it had occurred above the position of the tube and was probably due to some error in introducing the sutures. In some thirty drainage-tube cases which he had seen in the practice of Dr. Joseph Price, there had, as yet, been no hernia. It was probable that hernia was due more frequently to a long or a high incision and careless suturing than to a drainage-tube. The average length of time before the glass drainage-tube was removed in his cases had been about five days, the shortest two days and the longest eight days. In but one case had the discharge from the tube become purulent. The use of a cotton rope to act as a capillary drain added greatly to the value of the glass drainage-tube. It prevented any fluid from remaining in the bottom of the tube, and it removed the deposits of fibrin from the perforations in the glass.

One case was reported at length on account of the interesting phenomena attending the development and the subsidence of the peritonitis, and because it was treated throughout by sulphate of magnesium and rectal injections, and not by opium. And, indeed, he had not found it necessary to use opium in any of the cases reported.—*N. Y. Med. Jour.*

THE RADICAL CURE OF HERNIA.

The change which has taken place in modern surgery as a result of the introduction of antiseptic methods, is nowhere better seen than in the rapidly increasing frequency of operations for the radical cure of hernia and their great apparent success. At the annual meeting of the British Medical Association, held last year in Dublin, a series of interesting papers was read, which have only recently been published in full. (*Brit. Med. Jour.*)

The most important points to be noted are: (*a*) The treatment of the sac. (*b*) The treatment of the rings and edges of the canal. (*c*) The after-treatment as to the employment of pressure by truss or otherwise. Many details which cannot be considered as unimportant must be omitted from a brief summary, and should be studied in the original papers, which were remarkably concise and practical. Strict antiseptic methods were employed in every case.

Dr. Macewen carefully separates the sac from the entire inguinal canal and from the abdominal aspect of the internal ring; fastens a stitch in the fundus, throws the whole sac into a series of folds, transfixing them with the same stitch carried through one after the other up to the ring, threads the free end of the stitch in an eyed needle, and passes it through the abdominal wall an inch above the upper border of the internal ring, the skin at that point being pulled up so that it is not included. While traction is made on that thread, pulling the sac into the ring, so that its distal extremity is furthest backward and upward, the conjoined tendon is pierced by a ligature, so as to leave a loop inside; the lower end of that stitch is then carried through Poupart's ligament from within outward, the upper end through the transversalis, internal and external oblique muscles. Similar stitches may be introduced lower if necessary. The free end of the ligature through the sac is then fastened by passing it several times through the external oblique muscle, and the other stitches are tied, closing the internal ring. Chromicized catgut is used for these sutures, and to unite the skin. A decalcified bone drainage tube is laid in the lower angle of the wound. No truss is used. He states that the principle of the operation may be applied to femoral hernias, but gives no details.

Mr. Banks dissects out the sac, opens it, replaces bowel, ties and cuts away adherent omentum, pulls the sac well down, ligatures it as high in the canal as possible, and removes it. Finally, the pillars of the ring are brought together by two or three silver sutures, which are left in position. In femoral hernia the cleaning and removing of the sac constitute the whole operation. In ventral and umbilical hernia the sac is used as a plug to stop the aperture. He considers "freshening" the edges of the canal with the idea of securing union, to be "utter nonsense." He encourages his patients to wear light trusses afterward.

Mr. Ball isolates the sac completely, twists it on itself four or five times, and transfixes it with two sutures, passed first through one pillar of the ring, then through the sac, and then through the opposite pillar, after this the sac is excised, and the sutures tied over leaden plates. He objects to the subsequent use of a truss.

Mr. Stokes dissects the sac from the elements of

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the cord, divides it between two catgut ligatures, twists the proximal portion until distinct resistance is felt, and transfixes it with two silk sutures passing through both pillars and walls of the canal. These are brought through the skin an inch from the incision on either side, and tied "button fashion," over a leaden plate. He thinks the sutures serve a merely temporary purpose, and should be introduced loosely, and objects strongly to the permanent metal sutures. He is convinced that the after application of the lightest truss, fitted with a pad, is hurtful, and uses a linen dressing known in Dublin as "Harrison's truss."

Mr. Barker clears the neck of the sac close to the external ring, surrounds it with a silk ligature, opens it longitudinally, to to see that it is free from gut or omentum, ties it tightly, leaving long ends to the ligature, and cuts it away, allowing the lower portion to take care of itself. One of the ligature ends is then threaded in a needle, which is carried up the inguinal canal, forced through one border of the in ernal ring, and out through the external oblique muscle, the other end is put through the opposite border, when the two are tied, drawing the stump of the sac into the internal ring and closing it. The walls of the canal are then closed by four to seven ligatures; the ends are cut short. The skin wound is then stitched. No drainage is used. The use of trusses is avoided.

Mr. Franks closes the internal ring with silver sutures, two or three in number, transfixing the sac and excising it below them; he also closes the external ring. He leaves the sutures *in situ*, and believes their retention "materially fortifies the parts." He thinks a truss rarely necessary, and uses a cotton wool pad held in place by a bandage.

Mr. Mayo Robson ligatures and excises the sac and draws the pillars together with silver sutures.

Other gentlemen reported cases, and Mr. Puzey called attention to the need of prolonged rest after these operations. The aggregate number of cases operated upon, including those in which strangulation was present, was about 450; the deaths from the operation were very few; but the total percentage on the whole number of operations cannot be calculated, as exact figures were not given in each case. The mortality was, however, beyond donbt very trifling, as taking, for example, the cases of Macewen, Barker, Ball, and Franks, we have an aggregate of 168 cases without a single death. Only 10 deaths are mentioned out of the whole number, and of these 2 were from bronchitis.—*Am. Jour., Med. Sciences.*

ALL women are kleptomanic to a certain extent; they will hook dresses.

ON THE USE OF STRYCHNINE AS A HYPNOTIC.

Quiet sleep usually comes readily and quickly to any healthy person who is tired, but not overtired, with bodily or mental work. But as too many know, there is a condition of excessive fatigue, either bodily or mental, and more especially of that fatigue which follows intense mental strain or worry, which prevents the unhappy sufferer from obtaining the rest and refreshment by sleep of which he stands so greatly in need. The treatment of such cases is very difficult. The use of opium or other narcotics is objectionable, not only because it may tend to induce that dreadful condition, the opium habit, but because it frequently happens that the sufferer from sleeplessness is obliged to have all his faculties clear and all his wits about him in order to get through his daily work. The administration of opiates at night tends in many people to produce a certain amount of dulness through the day, which would render the use of these drugs inadmissible, even if there were no other objection to their use.

Chloral is not so objectionable on this account, as it may induce sleep without in the least obscuring the mental faculties next day, but the use of chloral also is objectionable both because of the tendency to the formation of a chloral habit, and because its long continued use may have a weakening action on the heart and also a deleterious action on the brain. I have seen at least one case in which the continued use of chloral appeared to induce mania, which began to improve as soon as the patient was removed to an asylum and cut off from the use of the drug.

Bromide of potassium is probably the least objectionable of all, but in many cases of overwork it seems to lose entirely, or almost entirely, its hypnotic action.

In treating some cases of persons engaged in literary work who were suffering from sleeplessness and yet were obliged to have their brains perfectly clear during the day, it occurred to me that if I could convert the condition of over-tiredness into a condition of simple tiredness, the patient would naturally fall sound asleep without the use of any hypnotic. One can sometimes do this to a certain extent by giving some warm beef-tea or a tea-spoonful of Valentine's meat juce in water either hot or cold, or by giving a little alcoholic stimulant, such as whiskey and water or brandy and water. It is probable that these substances have a double action, tending to dilate the vessels of the stomach and withdrawing blood from the head, as well as tending to exert what we may vaguely term a stimulant action on the nervous tissues themselves, without understanding what the exact nature of this stimulant action is. It occurred to me that as strychnine is one of the

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most powerful stimulants, if not the most powerful nervous stimulant that we possess, a small dose of it might have the effect of bringing the depressed nervous system up from the condition of over-fatigue to that of simple fatigue, and thus inducing sleep. I accordingly tried it, and was much pleased with the result. It acted exactly in the manner that I expected, and induced comfortable healthy sleep without any disagreeable effects next day. The way in which I have used it has generally been either in the form of the tincture of nux vomica in doses of 5 to 10 minims or in the form of Schieffelin's granules, containing $\frac{1}{100}$ of a grain of sulphate of strychnine in each. One, two, or more of these granules were given at bedtime, and the dose was repeated if the patient happened to wake within one or two hours afterwards.

I think it is very doubtful indeed whether strychnine would answer in other cases of sleeplessness than those arising from overwork or worry, and more especially from overwork. I have tried it however in a case of sleeplessness occurring in anemia, but as the patient at her next visit complained that the medicine made her sleep rather too heavily, I am not quite sure how mere suggestion may have played a part in effecting the result, nor have I been able as yet completely to eliminate this factor in other cases. The results which strychnine has yielded in my hands being so good, and the condition for which I have used it being so distressing, I have thought it worth while to mention its use as a means of affording sleep in order that others may try it as well as myself, and may, I hope, obtain from it equally good results; although it only too frequently happens that a drug seems to prove very much more effective in the hands of the man who first employs it than of those who try it afterwards.—*T. Lauder Burton, M.D., F.R.S., in The Practitioner.*

SOME USES OF CANNABIS INDICA.—It is in certain conditions in which apparently the use of cannabis is not so well known or widely employed in this country that the writer invites attention.

One of these conditions is anorexia—loss of appetite consequent upon exhausting diseases, such as prolonged fevers, diarrhœa, dysentery, phthisis, etc. This, a very common circumstance in India, causes at times much anxiety to the physician. The stomach suffers from the same debility as the other organs of the body, aud there is a repugnance to and intolerance of food in almost every form, which does not always yield to acids, bitters, and nux vomica as usually prescribed. In such cases cannabis indica in small doses (℥ v.-x. of the tincture or gr. $\frac{1}{4}$-$\frac{1}{2}$) of the extract have been found very useful. The former preparation may be ordered in mixture (emulsion), with a small quantity of mucilage and simple syrup, and flavored with rose-water; the latter as a lozenge or *bonbon*,—the extract being rubbed up with white sugar, gum acacia, etc., to suitable consistency. Such a mixture or lozenge given three times a day, half an hour before meals, will frequently, in two or three days, bring back appetite for food and promote its digestion. I need hardly say that both these preparations are very palatable and readily taken by even fastidious patients.

It is well known that consumers of the drug in India, have, as a rule, voracious appetites,—a fact or indication which appears to have been lost sight of in practical therapeutics.

Another condition is dyspeptic diarrhœa and the diarrhœa which is associated more frequently in the tropics than here, with defective action of the liver and deficient secretion of bile, and which constitutes the earliest and most prominent symtom of that obstinate and specific disease the diarrhœa alba of the tropics (hill or tropical diarrhœa). Speaking more particularly of the latter affection, a characteristic feature is the tendency to action of the bowels soon after meals, and the consequent hurrying of the imperfectly digested food through the intestines, accompanied by remarkable and active vermicular movements of the latter, with much flatulency, borborygmi, etc.

In the earlier stages of this disease cannabis often proves of great service in controlling the diarrhœa. But even in more advanced cases of tropical diarrhœa cannabis will sometimes prove very useful. I have most usually prescribed it in the form of mixture, beginning with ℥ x. of the tincture and gradually increasing the dose to ℥ xv., xx., or even xxx., three times a day or oftener. A suitable combination is the following:

℞.—Tincturæ cannabis indicæ, . . .	℥x.-xx.
Bismuthi subnitratis, ...	grs. x.
Mucilaginis acaciæ, ...	ʒss.
Spirit. chloroformi co., ...	℥xx.
Aq. cinnamomi *vel* aq. menth. pip.,	℥j.
	Misce.

This mixture may be given before or after food, preferably the latter, and more particularly when the dose of the tincture is increased. By exhibition soon after food the liability to unpleasant symptoms (headache, giddiness, hallucinations, etc.) is greatly reduced, even in persons who are very susceptible to these effects of the drug.

In both true tropical diarrhœa and the more simple dyspeptic diarrhœa cannabis has this distinct advantage,—that it in no way interferes with the bile-forming functions of the liver, as opium undoubtedly does; and yet the latter drug, though so valuable in other forms of looseness of the bowels, is apt to be incautiously used, and to my knowledge has been thus used with disastrous results, the proper nature of the above affections and their primary dependence upon altered hepatic function not being rightly comprehended.

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The third and last condition in which Indian hemp has been found useful by me is in cases of chronic cardiac disease and in chronic Bright's disease as an hypnotic.

In cases where there is distressful sleeplessness and general inquietude, rendering the sufferer's condition most miserable, where the heart is en feebled as well as over-taxed and chloral seems inadmissible, or, on account of the engorged state of the lungs or of the defective action of the kidneys, opium must be avoided,—in such cases the administration at bedtime of ℥ xv.-xx. of the tincture of cannabis indica, combined with a small dose of chloral (grs. x.) and ʒss of bromide of potassium, will often act magically in giving not only sound and refreshing sleep for several hours, but also in greatly alleviating the general disquietude and distress of the patient; and that this effect is to be attributed to the combination of chloral and potassium bromide (as might by some be supposed), I have assured myself of by check experiments, both on the same and on different patients, on many occasions.—*Practitioner.*

Sir Morell Mackenzie.—Three generations ago a Rossshire Highlander put a shilling about some part of his person and set his face across the Scottish border. His name was Mackenzie; he amassed a good fortune, and his grandson grew into a mad doctor of much ability but of retiring habits. To this physician, then living at Leytonstone, England, there was born fifty years ago a son who was named Morell, after an uncle who perished very creditably in the loss of the Pegasus. Young Morell was left to run wild in Epping Forest to an advanced boyhood, but he progressed well later; took a high degree at the University of London; abjured the retiring habits of his father; screwed a brass plate on his door; and took to looking down people's throats for guineas. His success in private was great and immediate, and a few years after setting up he could give to physicians who had been established a life-time a score of patients and a beating. He became a specialist. He wrote books on "Diseases of the Throat and Nose," and on the "Hygiene of the Vocal Organs." He founded the Hospital for Diseases of the Throat, in Golden Square, obtained all the professional honors in general which throat and nose can give, and became the special champion of specialism in medicine as opposed to general routine; in which capacity he largely developed and amply displayed the bellicose and controversial predisposition he had inherited from the original Highlander. A few months ago he was called in to deal with the throat of the Crown Prince of Germany, which had baffled all the German doctors; and this he has treated with such success that it has been made the occasion for conferring upon him the distinction of a knighthood. Sir Morell is a man of wealth, of capacity and of strong individuality. He has long been the physician and friend of all singers and actors, and he has a son who is already making a name as a comedian. He can often see a joke, which is unusual for a Scotchman.—*Vanity Fair.*

The Green Diarrhœa of Children.—Another alleged triumph of the microbe is brought to light through the researches of M. Hayem and his assistant, Lesage, who affirm that this industrious creature is the cause of the green stools of children. These investigators assert that for the first twenty to twenty-five days after birth, diarrhœa occurring in children is apt to be bilious in nature, but such a form of diarrhœa becomes more and more rare up to the age of six months. After this time, if the discharges are examined in cases of green diarrhœa, an innumerable number of pathogenic bacilli will be found, to such an extent that to their presence is due the peculiar mucous character of these stools; while the coloration is due not to the bile-pigments, which are entirely absent, but to a peculiar pigment secreted by the bacilli themselves, and which may be reproduced in artificial cultivations of the microbes. It would, therefore, seem clear that because the passages in a case of diarrhœa are green it is not warrantable to speak of them as bilious, since in many cases bile-pigments will be entirely wanting in cases of green diarrhœa. Further than this, it would seem that this form of specific diarrhœa is contagious, and may be produced in different animals by the induction of the bacilli through various means. While it is claimed, however, that there is a certain amount of probability in the contagion of the disease, of course it does not imply that dyspeptic troubles are without influence on the development of this form of diarrhœa, since it is readily conceivable that indigestion, by preparing the soil, may favor the production of this bacillus. Hayem and Lesage have found the greatest success in the treatment of this form of diarrhœa by the administration of a two per cent. solution of lactic acid in teaspoonful doses. Of course, in this form, as in other forms of diarrhœa, the diet must be regulated. Care must be taken to employ disinfection of the stools to prevent the spread of the affection, and by proper care it is claimed by these means the mortality of this microbic form of diarrhœa may be reduced to a minimum.—*Therap. Gazette.*

Treatment of Syphilis.—In a late issue of the *Bulletin Gén. de Thérap.* is a useful paper on the treatment of syphilis, by Prof. Verneuil. As a representative of the more conservative of French surgeons, Verneuil speaks with authority on such topics. The conclusions at which he arrives

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harmonize with the opinions most generally held. He maintains the superiority of mercury. As respects the diagnostic value of the two agents—iodides and mercury—he never decides the question of specific lesion or not, except from the results of a trial of mercury. In three examples of old syphiloma of the testicle—cited for illustration—the iodide of potassium in massive doses failed to disperse the tumor, but mercurial treatment effected a cure in a few weeks, thus demonstrating the nature of the neoplasm.

Professor Verneuil does not advocate the huge doses of iodide of potassium now in vogue—30 to 45 grains per day being his maximum—except in cases of rapidly destructive ulcerations of the nares, veil of the palate, and similar lesions, and even then in quantity not exceeding 75 or 96 grains *per diem*. He has never favored the conjoint administration of mercury and iodides. He prefers to give mercury by itself, and associated with remedies to improve the general state of the patient. He has occasionally made use of the combination of these remedies in slowly developing secondary or tertiary accidents when mercury does not act well, or has not been given at all. Under such circumstances he prescribes in the simplest way ¾ grain of protoiodide of mercury and 15.5 grains of potassium iodide.

Mercurial frictions, although in some cases acting energetically, do not commend themselves to his jndgment. When he has employed inunction, he has not dispensed with the internal administration of the protoiodide or some other mercurial, in small doses. Nor has he practised the method of subcutaneous injection of mercurials, which often cures, apparently, in twenty to thirty days. He holds that the most certain curative results are obtained by the slow saturation of the organism as effected by the stomachal administration rather than by sudden impression.

For the local treatment of syphilitic ulcerations, mucous patches, etc., the early manifestations of the constitutional state, he employs nitrate of silver, or chloral solutions, topically, in conjunction with the use of mercury internally. —*Am. Jour. Med. Sci.*

THE TREATMENT OF EXOPHTHALMIC GOITRE.—Dr. R. Vigourour (*Le Progrès Med.*) lays great stress upon the kind and method of application of electricity in the treatment of this affection. He employs faradization in the following manner: (1) A large electrode from 7 to 8 ctm, in diameter is is applied to the inferior part of the neck posteriorly, and is held in position by the means of a band. The other electrode is olive-shaped or button-shaped, less than 1 ctm. (⅓ in.) in diameter, and is connected with the negative pole of the battery. This electrode is applied behind the angle of the jaw, in front of the sterno-mastoid muscle, and is made to press upon the carotid artery. The application is made during a minute and a half, and is then transferred to the opposite side, where it is continued for the same length of time. (2) The small electrode is then passed lightly over both orbiclares palpebrarum in turn. (3) The olive elcetrode is now replaced by a plate 4 ctm. (1⅗ in.) in diameter, and is applied to the thyreoid tumor. (4) The small electrode is now rendered positive, and is applied to the precordial reigon, in the third intercostal space, to the left of the sternum, and and the current should be sufficently strong just to excite fibrillar contractions. The application is made for to or three minutes. The seances are repeated every second day. There is no advantage in repeating them daily. The ill success of the of this affection by some, the author thinks, is due to want of attention to the foregoing details. In most cases it was the only treatment he employed, and his results were exceedingly good. Hydrotherapeutics is unnecessary with this form of treatment.—*N. Y. Med. Jour.*

THE THERAPEUTIC VALUE OF BORACIC ACID.—Recently much has been written concerning the value of boracic acid in leucorrhœa and in gonorrhœa of the male and female.

The merits of this agent have been long recognized in ophthalmological practice, and it has been lauded greatly in the treatment of inflammations of the lining membrane of the bladder.

As an antiseptic. its claims are established. It is said to possess no value as a germicide.

A three per cent. solution is the one usually prescribed in all departments. In weaker solutions than this its antiseptic effect is said to be not so marked. Its use in the treatment of nasal catarrh is also worthy of mention. We have prescribed it in this condition in the strength of a teaspoonful of the powdered acid to a pint of warm water. Three or four tablespoonfuls of this are to be poured into each nostril two or three times a day. We often prescribe it in this condition also in the following combination:

℞—Cocaine hydrochlor, ...	gr. ij.
Acidi boraci, ...	gr. xv.
Listerine, ...	℥j.
Aquæ destill, ...	℥j.

M. D. Sig—Use as a spray for the nose morning and night.—*Gaillard's Med. Jour.*

ON REVACCINATION.—Dr. G. Somma is an enthusiastic partisan of vaccination and recommends energetically the introduction compulsory revaccination in this country. Taking into account the whole foreign and Italian literature on the subject, he formulates his view in the following sentences.

1. The protective effect of vaccina against small-pox is indubitable. 2. This effect is limited

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in time, and vanishes after ten or twelve years. 3. Revaccination, therefore, is indispensable, for those successfully vaccinted in childhood, as well for those who have passed through variola and variolaids. 4. Revaccination almost perfectly protects the body from an attack of small-pox. 5. Its necessity is founded on scientific and experimental facts. 6. The age of adolescence offers the best opportunity for effective vaccination.

7. It is to be performed with animal lymph exclusively. Vaccination and revaccination are the only means to put an end to continuously returning small-pox epidemics.—*Am. Med. Dig.*

TYPHOID BACILLI AND BOILING WATER.—In order to test the destructive power of boiling water on typhoid bacilli, Dr. Vilchur, of St. Petersburg, made a number of pure cultures in broth, keeping them in a thermostat for two days at a temperature of about 92° F., and then mixed them with known proportions of boiling water, immediately afterward sowing the mixtures in jelly. The results showed that, when the volume of boiling water equalled that of the culture, the bacilli were partially but not wholly destroyed. When double the volume of boiling water was used, the bacilli were all killed. From experiments with typhoid stools, he found that all the bacilli, however numerous, were invariably destroyed by the addition of a volume of boiling water equal to four times that of the stool. In this way he suggests it will be easy to disinfect with certainty all the dejections of typhoid patients.—*Lancet*, January 14, 1888.

THE TREATMENT OF URÆMIA.— Lancereaux prescribes, to favor the secretion of urine :

Pulv. scillæ,
Pulv. scammon.,
Pulv. digital., ... āā gr. $\frac{3}{4}$.

In one pill.

From four to six may be taken daily, for from five to six days.

Roland prefers the following combination, which acts on all the emunctories :

Ext. jaborandi (alcohol.),
Ext. scillæ,
Resin. jalap.,
Resin. scammon., . . āā grs. $\frac{3}{4}$.

In one pill.

Four or five pills may be taken daily, for several days. If preferred, nitrate of pilocarpine may be substituted for jaborandi, in doses of from 1-35th to 1-15 of a grain.—*Rev. de Clin. et de Thérap.*

WHY SOME DOCTORS FAIL—

They are too lazy.
They are easily discouraged.
They do not try to improve.
They fail to know what the world is doing.
They have too much outside business.
They talk politics too much.
They fail to have new ideas.
They are not polite enough.
They think most things take too much trouble.
They read no professional papers or books.
They are trying to go into something else.
They follow the same method with each patient.
They attend no professional meetings.
They complain too much.
They fail to practice what the professional papers tell them.
They do not determine to be the best doctors in the place,
They do not seek information by studying the methods of the best teachers.—*Lansing Republican.*

THE ETIOLOGY AND PERIOD OF INCUBATION OF CROUPOUS PNEUMONIA.—R. Caspar (*Berlin klin. Woch.*) has carefully studied two hundred and four cases of croupous pneumonia which have come under his care within the past five years, with the view of determining the etiological factors and the perlod of incubation of this disease. He believes it is infectious, and some cases which he observed favor this belief very much.

One of the most striking instances was where a son from another village came to visit his father, who was lying ill with pneumonia. The son remained only part of the day and then returned to his village, which was entirely free from cases of pneumonia. Four days afterward he was taken ill with an attack of that affection. A number of other cases that the author observed made him draw the inference that the period of incubation was four days. He could not observe any meteorological conditions to explain the outbreak of the epidemics, nor during an epidemic did he notice that different conditions of the barometer had any influence upon the spread of the disease. His cases occurred also mostly during the first four months in the year. He does not consider, as some observers do, that pneumonia is secondary to bronchitis. He concludes his article as follows : 1. Fibrinous pneumonia is an infectious disease. 2. It is contagious. 3. Its period of incubation is four days. 4. Low temperature, slight absolute humidity, and strong winds seem to favor its spread.—*N. Y. Med Jour.*

A SIMPLE METHOD OF DISLODGING IMPACTED GALL-STONES.—Lawson Tait describes the following simple procedure, which he has used in one case sucessfully. It consists in passing a fine needle through the wall of the intestine from below (that is from the empty part of the intestine) into the gall-stone. The stone is thus easily and immediately split up into fragments and passes readily along the intestine, and the grave com-

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plication of opening the intestine is rendered unnecessary. The operation is, in fact, little more than an exploratory incision.—*Lancet,*

RESECTION OF LEFT LOBE OF LIVER.—Dr. Langenbuch (*Berl. Klin. Woch.*, 1888, No, 3) records a case in which he successfully resected the greater part of its left lobe, which had been extensively deformed by tight lacing, and had caused great inconvenience and trouble to the patient. The woman, about thirty years of age, was, in November, 1886, under treatment for erysipelas at the Lazarus Hospital, and when about to be discharged convalescent, she begged that she might be relieved of a painful abdominal tumor that rendered life unbearable, and caused pain both on standing and on lying down. On examination a tumor of the size of the fist was detected in the epigastrium—dense, elastic, not fluctuating, moving with respiration, and its dulness continuous with that of the liver. The diagnosis lay between hydatid tumor and deformity from tight-lacing (*Schnür-leber*), although the latter condition usually involves the right lobe. An exploratory incision proved that the case was of this kind, but involving the left lobe, and probably for that reason producing the painful symptoms. Dr. Langenbuch decided that it would be advisable to remove the source of so much distress, especially as the portion of the lobe forming the tumor was practically cut off from the rest of the organ by a broad but ligamentous pedicle, and therefore it was functionally of no service. Accordingly, the pedicle was transfixed by ligatures, and the lobe excised. The same evening symptoms of severe internal hemorrhage appeared, and, on re-opening the wound, the abdominal cavity was found to be filled with blood; this was sponged out, the bleeding vessels secured, and no further trouble arose from that source. The wound healed, but recovery was somewhat retarded by the development of ascites, which necessitated tapping on two occasions. It could not be determined how far the ascites were due to the cardiac debility and hydræmia resulting from the previous prolonged attack of erysipelas and the profuse hemorrhage, or how far it might have depended on the diminution of the hepatic circuit. There was œdema elsewhere, so the former hypothesis had some support. At any rate it was not permanent, and the patient left in February quite well. The portion of liver removed weighed three hundred and seventy grammes (about twelve ounces), and Dr. Langenbuch says that the case shows the feasibility of removing the lobe of a tight-laced liver when this gives rise to serious discomfort.—*Lancet.*

MERCURY WITH CHALK IN THE TREATMENT OF TAPE-WORM.—The writer has sometimes found mercury with chalk a most effective tæniacide, and cites the following case in illustration: "G. W., aged thirty-one, a blacksmith by trade, had complained of an indescribable feeling in his stomach, bowels, and all through him, as he termed it, for three or four years. There was a wild look in his eyes, and a pecular appearance of the skin which attracted people's attention, so they would ask what ailed him. His appetite was fastidious; at times he would eat voraciously, then again eat nothing. He became greatly emaciated, and vomiting grew so incessant that he was unable to retain any food. The vomiting had continued about six weeks when I first saw him. He had been treated by several physicians, but said he was getting worse instead of better. I gave him three powders of hydrargyrum cum creta, with directions to take one, morning, night, and morning, with a dose of castor oil after the last powder. He came back in three days surprised, smiling, and happy, saying he had passed a tape-worm thirty feet long. He was no longer troubled with vomiting, ate heartily, improved rapidly, and he has felt like a new man ever since the worm was expelled."—Dr. Squires, in *N. Y. Med. Rec.*

FLUID EXTRACT OF ERGOT FOR INCONTINENCE OF URINE IN CHILDREN.—I have been using for many years the fluid extract of ergot in the treatment of incontinence of urine in infants and children; and I almost regard it as a specific for the disease. I prefer to give it simply, and to treat separately any condition of the patients that may require therapeutical aid to correct those states of physical debility which either predispose to incontinence of urine or aggravate its presence. I give to an infant from one to three yeaas old, 5 to 10 drops; and to a patient from three to ten years, 10 to 20 drops every three hours. Few children object to its taste, and it should be continued nninterruptedly for two or three weeks, and resumed if the disease should return, in which case the doses ought to be gradually increased.—Dr. Johnson, in *Med. and Surg. Reporter.*

IT is stated, in the *N. Y. Med. Rec.*, that Nussbaum claims to quickly cure erysipelas by the use of ichthyol. The erysipelatous surface is first disinfected, and then painted with ointment made of equal proportions of ichthyol and vaseline. The part thus painted is covered with ten per cent. salicylic lint, and fixed with a gauze bandage. Next day the border is found to have remained stationary, while the inflamed surface is shrunken into yellowish-brown creases, and is painless. After three days the dressing is discontinued. Five consecutive cases treated on .his plan gave equally successful results. Icythyol colodion is recommended for applications to the face, and ichthyol soap for the scalp.

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THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

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TRINITY MEDICAL SCHOOL AMENDMENT ACT.

Most of our readers may have noticed than an act, affecting Trinity Medical School, introduced during the late session of the House of Assembly, became law. Under it this institution so long and favorably known, becomes *Trinity Medical College*, a standing which it has well earned. The other amendments were merely to enable the "College" to hold a larger amount of property, and refer to investments.

As the Bill was going through the House a short section was added, which would have enabled the "College" to admit to its own examinations candidates who might not have been educated within its walls.

The examinations have been held ever since the first incorporation of the school, and have been always very stringent, with the view of ensuring that a good position should be taken by successful candidates at other examining boards, *e. g.*, those of the several Universities with which this Medical College is affiliated, as well as before the Examiners of the Medical Council, which body alone has very properly the power to grant a "license to practise." Now and then application has been made to the school by registered men in practice, to be allowed to go up for this Medical School Examination—the reason given in every case for making such a request being, that the certificate of Trinity Medical Faculty, although very properly carrying no "license" with it, stands high in general estimation.

These applications have been all refused—and it was felt to be rather an anomalous thing to refuse a request so reasonable, as permission to undergo the same examinations taken by Trinity Medical students, in order if possible, to get a coveted certificate. To meet such cases, the fourth short section above referred to was introduced into the act, and passed through the Private Bills Committee. This section simply added the words "or others" to one of the sections of the original Act of Incorporation. This change, which seems to us rather insignificant, was however held by some of the members of the Faculty of the Toronto School to be equivalent to granting to Trinity "full University powers," a position which is, we think, absurd. If the parties who made the statement that such enactment would give Trinity "full University powers" believed it, we are pretty certain that no one else who knows anything about medical education in Ontario would do so. We understand that some of the highest functionaries connected with Toronto University were so much interested in the matter as to do some lobbying against it amongst the members of both sides of the House. The authorities of Trinity Medical School, were somewhat surprised at the amount of interest so trifling a matter excited, and were not over-pleased at the misrepresentation which they believe was made of their case.

The proposed change is really of little importance to Trinity and certainly encroached in no degree upon the privileges of any other institution in the Province, and could not have proved, had it become law, "perilous" to the medical profession in Ontario.

The letters F. T. M. S. are not, we apprehend, the most important that may be appended to a man's name, and yet they are of sufficient importance to be coveted by not a few in this province and out of it, but so far as subversion of our medical liberties is concerned, they are powerless.

It is well known that Trinity Medical College is a steadfast upholder of the Medical Council as the sole licensing body. Alter this, and in Ontario the medical profession would just be where it was many years ago, when every graduating and teaching body was also a licensing body, and when the

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question amongst students was chiefly, through which of these numerous portals, they could most easily enter the profession.

But for this one central board, we in Ontario would not to-day be one whit above our friends in the United States as regards the status of the profession, and the standard of medical education.

Nor does Trinity Medical College desire university powers—she is quite content with those she possesses, and has no desire to encroach on the privileges of any other teaching, or degree conferring body in the province. At the same time it does appear singular that her rivals should be so afraid of any one being able to obtain the "*imprimatur*" of this particular Medical Faculty. It speaks well for the standing of that "*imprimatur*," and Trinity medical professors and students will hereafter think more highly than ever of the honors their College has to bestow.

As Trinity regarded the very slight changes proposed in the new section of the Amended Act as of little value, the member who had charge of the bill was asked by the school to withdraw the section altogether.

It is to be hoped that the future of Trinity Medical College, under its new name, may be all that its friends could wish, and may be fully worthy of its past long and distinguished record.

MERCURIAL FUMIGATIONS IN LARYNGEAL DIPHTHERIA OR DIPHTHERITIC CROUP.

The above is the caption of a very interesting and instructive article in the N. Y. *Med. Jour.*, by Dr. Cobbin, of Brooklyn. He draws attention to the nearly hopeless condition of the patient when the membrane has extended from the fauces to the larynx, and to the small benefit, other than a more easy mode of death, which in nearly every case follows tracheotomy undertaken for this condition. Of intubation he speaks more hopefully, and mentions the fact recently published that a favorable result has been noted in about thirty per cent. of a certain series of cases.

He first attempted fumigation in 1874, with the result of seeing the child recover after the hoarse and stridulous cough had set in, and there had been complete loss of voice. The writer goes on to give a statement of a considerable number of severe cases in which the happiest results followed this plan of treatment. No salivation or mercurial toxæmia are reported by him, or by several other medical men with whom he had communicated on the subject. He does not propose that this treatment shall take the place of tracheotomy or intubation, but says that it should be adopted as soon as the physician is satisfied the larynx is invaded. As to the details of the treatment he gives the following:—

I insist, when possible, that the patient be in a room where the sunlight has free entrance, that the temperature of the room shall not be lower than seventy-five degrees, and that the air shall be kept moist by the evaporation of water. During the time of the fumigations the patient receives no medicine whatever. At the beginning and end of a fumigation, milk-punch or wine is given. This I insist upon. A child's crib with barrel-hoops across the top, secured, and over these spread a flannel blanket, makes a suitable canopy or tent. In the case of a child eight or ten years of age I volatilize from forty grains to a drachm of the mild chloride. I keep the child under the canopy twenty minutes, when the blanket is removed. This is repeated every two or three hours during the first day. After this period I expect to find the cough loosened, giving directions to prolong the intervals of the fumigations, and at once to resort to them if the cough tightens. I have had cases where they had to be continued for over a week, but not more than two or three each day. The aphonia may not disappear for a week or two, but this need excite no alarm. Let the patient receive the most thorough alimentation. The fumes are not offensive and as a rule the child makes no resistance after the first fumigation. Generally the patient falls into a refreshing sleep, and sometimes he will point to the lamp, indicating that a fumigation is desired. The lamp had better be powerful enough to volatilize a drachm of calomel in one minute. The lamp I have constructed does this. By this means the air of the tent is not raised to too high a temperature for respiration.

The whole returns so far show a mortality of 16 per cent., and of these some died from albuminuria two weeks after apparent recovery, some from discontinuance of the treatment by the family and from other causes, none of which were

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apparently due to laryngeal trouble. This is an exceedingly good showing, and the plan should certainly be adopted if even a much less favorable result should be the outcome of a more extended experience of it.

TRAINED NURSES.

It is a matter of sincere congratulation that nursing is rapidly rising to the status of a profession. We are sure we express the opinions of the vast majority of medical practitioners, when we say that this is as it should be.

As we advance in the science and art of healing, our faith in medicines as *specifics* passes away, and more and more do we come to regard good nursing as a *sine qua non*, in the successful treatment of disease. No one who has not had the benefit of the assistance of trained nurses in his practice, can appreciate fully the vast importance to the patient and comfort to the practitioner of having always present in serious cases, one who by education, intelligence, and scientific training, is able to act as his efficient collaborateur in his effort to combat disease. The great success which attends the treatment of disease at sanitariums, rest cures, and retreats of various kinds, depends certainly not upon the drugs that are taken while there, but upon intelligent methods as to sleep, rest, food, exercise, etc., and, as has been well remarked, those who have made such resorts a notable success, "have laid the foundation of that success by employing efficient nurses."

The training of nurses is of comparatively recent date in America. We in Canada, following the example of the New York hospitals, have now several training schools, and the results of the education of nurses at these schools is already felt, especially in Ontario.

The demand for skill and professional training in this walk of life is rapidly increasing. In Toronto it is often with difficulty that the services of a trained nurse can be obtained, though the school at the Toronto General Hospital is always full, and is certainly turning out large numbers of young women fully qualified to take the office of *aide* to the medical attendant in all classes of cases. Large numbers of young ladies are now applying for admission to the schools—ladies by birth and education, who are ready to take their places as units in this sphere of self-supporting, active, useful life. To be a good nurse requires more than intelligence and education. There must be refinement, quick sympathy, a capacity for governing, and a promptness in meeting sudden emergencies which must always be arising in their daily lives.

The social position of nurses is rapidly improving, as indeed it should do. The educated and trained nurse should be quite on a par, socially, with the doctor, and we are happy to state that in Canada the good sense of the people is placing these women in their true place. There is no reason why the nurse should not be the friend of the patient, and when that day shall have arrived when lady patients need not feel they are treating with inferiors in their nurses, we shall see the best results from a medical standpoint, of professional nursing. The days of Sairey Gamp and Betsey Prig are rapidly passing, and patients, friends and doctors are beginning to understand what a comfort and a blessing in a sick room is one who has the true spirit of nursing, backed by a sufficient training. The two years' course is general in this country and in England, but a movement is now on foot in the latter country to extend the novitiate over three years' time.

The British Nurses' Association has lately been called into existence under the patronage and control of some of the first men in England, among whom may be mentioned Mr. Savory, Sir Joseph Lister, Sir Dyce Duckworth and Dr. Quain, as showing the sense of the importance of the profession, felt by those eminent medical men. It is proposed to adopt a system of registration, so that the public may be able to distinguish thoroughly trained nurses from others who are not. This right of registration of members of the body is sought to be obtained by a charter giving the Association legal power to examine and register nurses; the examinations to be held either by the authorities of the different hospitals or by a central board of examiners. In regard to our own country we are perhaps not yet in a position to take so high ground, or, owing as their greater numbers and means the English are able to do; but we can and should encourage by every means in our power the growth of professional spirit and *esprit de corps* among our trained nurses. There

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can be no doubt but that a wide field of usefulness is opening up for numbers of our young women, and already our trained nurses are justly held in high estimation by the profession and laity, not only in our cities, but in the towns and country, whither not a few have gone to practise their profession, the true spirit of which was so well expressed by Princess Christian at a late meeting for the furtherance of the aims and objects of the British Nurses' Association, in the following words :—

" Perfect service rendered, duties done,
In charity, soft speech, and stainless days,
These riches shall not fade away in life,
Nor any death dispraise."

BINIODIDE OF MERCURY IN SCARLET FEVER.—Dr. Illingworth, in the course of a discussion on scarlet fever (*Ed. Med. Jour.*), spoke strongly as to the great value of this drug in the treatment of scarlet fever. He has had the happiest results from its use, as it "modifies the course of the fever, reduces the temperature, checks or altogether prevents the inflammation of the skin, and prevents the dreaded sequelæ." He ascribes these benefits to the germicidal properties of the drug. By giving the bichloride solution of the B. P., with pot. iod. in excess, he holds it in solution and prevents mercurialism. For a child of seven years he orders half drachm doses of the bichloride solution, with one and a half or two grain doses of pot. iod., every two, three or four hours. As soon as the rash disappears and the temperature becomes normal, iron is given. He applies the biniodide locally to the throat when necessary. The exact formula for this preparation is as follows :—Add 10 minims of a 1 in 4 solution of potassic iodide to an ounce and a half of a 1 in 500 solution of the bichloride, and sweeten with glycerine. This he applies to the throat three times a day by means of a brush. In malignant cases he gives iron. In kidney troubles, with dropsy, he depends upon iron, with an occasional dose of jalap powder. When convulsions from uræmia supervene, he practises venesection, and believes he has saved life thereby. He does not keep up the quarantine more than ten or twelve days if the throat be free from mischief, regardless of desquamation. He thinks one or two carbolic soap baths about the tenth day are sufficient to prevent infection. When the stomach will not bear the solution, he gives $\frac{1}{16}$ of a grain in powder, three times a day, with pulv. sacch. He believes in the prophylactic action of the drug.

CALOMEL IN CROUP.—Dr. Davis Phillips (*Med. Reg.*) believes that calomel is indicated in the treatment of croup, both from our pathological knowledge of the disease and clinical experience. He has had more favorable results from it in his practice, than from any other method of treatment. He speaks definitely as to its action as follows :—*Action of Calomel.*—First. Removes thickened and infiltrated condition of the laryngeal mucous membrane, with the accompanying sub-mucous œdema Second. Renders the exudated lymph less fibrinous and more readily absorbed, and diminishes its cohesive attachment to the mucous membrane. Third. Seems, *by its peculiar effects on the intestinal tract, as a whole,* to produce a peculiar impression on the economy *which tends to stop the inflammation*, reminding one, in this respect, of the action of large doses of iron when given in erysipelas.

As to the details of the plan of treatment which he insists should be *carefully* carried out, he gives the following :—An emetic to commence with—preferably the yellow sulphate of mercury—which may be repeated at intervals, if thought necessary ; the throat enveloped in a hot poultice, which should be renewed every half-hour or hour ; the room kept constantly full of the vapors of water and turpentine—made by floating a little turpentine on water, in a vessel, and keeping up constant heat ; from a half to a teaspoonful or more of whiskey in a tablespoonful of milk every hour, and the administration of calomel in one-grain doses every hour until the characteristic calomel stools are produced. The calomel should then be stopped and the chloride of iron and potash mixture given every hour. If the heart becomes weak, strophanthus or digitalis should be given. Relapse should be met by a renewal of the calomel, and if intubation or tracheotomy be necessary, the same treatment should be continued, as neither operation in any way affects the course of the disease.

BORACIC ACID IN CHRONIC SUPPURATION OF THE MIDDLE EAR.—At his clinic recently, Prof. Seely (*Cin. Lancet Clinic*) gave the following conclusions regarding the use of boracic acid in the above

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disease : 1. Only a pure and absolutely impalpable powder should be employed. 2. The large majority of these cases get well by simple cleanliness, and keeping the ear in as dry a condition as possible. 3. Boracic acid used by packing the meatus more nearly accomplishes this than when used by inflation. 4. If the powder remains dry, the ear may be inflated occasionally to determine the condition of the middle ear, whether dry or moist. 5. If employed in this manner the boric powder is not only safe, but efficient in many obstinate cases. 6. We can not tell definitely beforehand in what class of cases it will yield good results, unless it would be in those cases where the tympanitic cavity is filled with exuberant granulations. It can be said with all sincerity and safety that little fear need be entertained from the packing of the meatus with boracic acid in chronic purulent inflammation, if the physician inflates the ears daily. The air rushing through the perforation leaves a vent for the pus, if any has accumulated, or it can escape through the Eustachian tube into the mouth.

CROUP AND DIPHTHERIA.—Dr. Ouchlerlony, of St. Louis, in an article in the *Am. Pract. and News*, on the non-identity of pseudo-membranous croup and diphtheria, concludes by giving the following differential diagnosis :

DIPHTHERIA.	CROUP.
Occurs in epidemics.	Not so.
Infectious.	Not so.
Has a period of incubation.	Not so.
Most common in children but occurs at all ages.	More common in children. Rare in adults.
Principal seat, tonsils and parts above the glottis. When invading the larynx it is secondarily.	Primary and principal seat, the larynx and treachea. Implicates the upper parts but to a slight degree.
Grandular enlargements present.	Not so.
Asthenia early and marked.	Not so.
Febrile disturbance more or less prominent.	Generally high.
Symptoms largely due to toxaemia.	Symptoms chiefly due to mechanical obstruction.
Nephritis a common accompaniment.	Not so.
Acute fatty degeneration of the heart frequent.	Not so.
Muscles of the arms, legs. chest, and eyeball in a state of fatty or waxy degeneration, often with paralysis.	Not so.
Duration often more protracted.	Runs it course in a few days.

TREATMENT OF THE COUGH OF PHTHISIS.—J. Milner Rothergill, writing of the early treatment of phthisis, says (*Lond. Hosp. Gaz.*) of the means to be used to allay the troublesome cough : Plain steam is good in irritative cough with dry air-tubes. Iodine, carbolic acid, eucalyptus, Friars' balsam, or ordinary terebene are often excellent medications, and allay cough. The other is a resort to a cough linctus. On this matter opinions may differ. Some use paregoric to allay ceaseless cough, and do a great deal of harm very often therewith, though paregoric is the least objectionable of "cough medicines." The reckless resort to something "to allay the cough" has, in my experience, been too frequently followed by disaster to recommend itself to a thoughtful practitioner. Something to allay cough and preserve sleep at night certainly does more good than harm ; but "cough stuff" in the day is my abhorrence. It may be no more than prejudice, perhaps.

THE USE OF SACCHARINE IN DIABETES.—The importance of this compound in giving sapience to food for diabetics has been widely noted, and a good deal of useful discussion has taken place in regard to its value. Dr C. W. Purdy in the *Jour. of the Am. Med. Assoc.*, writes that the following conclusions are justifiable :

1. That in this product we possess a flavoring agent for food and drink, the palatability of which is quite equal to that of the finer grades of sugar, and which may be used by diabetic patients with the greatest impunity. 2. That, through its antiseptic properties, it retards the abnormal fermentative changes in the stomach so common in diabetic patients—thus promoting digestion and relieving flatulence. 3. That, while as yet we are without sufficient practical data to judge of its effect in large doses to diabetic patients, yet both chemistry and physiology would indicate its use for the purpose of favorably influencing some of the more fatal complications of the disease.

TREATMENT OF ABORTION.—The following rules have been observed for three years by Fasala (*Annali di Obstet.*) with good results :—1. An expectant course is pursued when the cervix uteri is closed, and can be dilated with difficulty, and if no signs of the decomposition of the fœtus are

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present. 2. Under conditions favorable for the introduction of instruments or the hand, the ovum and its appendages are promptly removed. 3. If decomposition has begun, the cervix is dilated by laminaria tents or metallic dilators, and the ovum is removed. 4. Intra-uterine injections for antisepsis are made with warm solution of bichloride of mercury, 1 to 2,000; in case of hemorrhage, hot solution of bichloride of mercury, 1 to 4,000, and tamponing the vagina, are used.

MEDICAL TREATMENT OF VAGINISMUS.—Dr. Girard gives (*Med. Age*) the following:—1. Bromide of potassium in 2-gramme doses daily. 2. Sulphate of quinine, because of a certain accession of intermittent fever. 3. Friction on the dorso-lumbar region with a liniment composed of 60 grammes of the ext. of hyoscyamus and 15 grammes of chloroform. The author adds that when the vaginismus is accompanied by a fissure in the vulva, he adds to the foregoing treatment the use of suppositories of krameria, made after the following formula:

℞.—Cocoa butter, ... 3 gr.
Extract of krameria, . . . 2 gr.

GLYCERIN IN CONSTIPATION.—Dr. J. Althaus (*Prov. Med. Jour.*) calls attention to a new indication for glycerin. He finds it useful even in habitual constipation. He states that a teaspoonful or even less injected into the rectum, causes a speedy evacuation without pain or irritation. It cures *cito, tute et jucunde.* He explains its action as follows:—"Glycerin, when brought into contact with the mucous membrane of the rectum, withdraws water from it, causing hyperæmia and irritation of the sentient nerves of the rectum, which lead by reflex action to powerful peristaltic contractions, ending in defecation."

DEATH FROM CHLOROFORM.—Dr. Chisholm (N.Y. *Med. Rec.*), in an interesting article, gives the result of his experience in the use of anæsthetics. He has administered or superintended the administration of chloroform in over ten thousand cases. He believes that inversion of the patient who is in danger from the administration of chloroform is the safest plan of treatment. He does not resort to artificial respiration. He also directs that the pillows be taken from beneath the head as soon as narcosis is complete, so that the head may be during the whole operation the most dependent part of the body.

STROPHANTHUS IN METRORRHAGIA.—Dr. Poulet (*Gaz. de Gynecol.*) speaks of the use of this drug in metrorrhagia occurring at the menopause and in stout women during the period of fecundity. He has used strophanthus in both classes of cases for about 3 years. He prescribes 5 centigrams of the powdered seed in a pill made with honey. 2 pills are the dose for the first day, 3 for the second, and 4 for the third, if the flow have not ceased.

SORE NIPPLES.—Dr. Scarff (Maryland *Med. Jour.*) writes as follows:—The following is a recipe that I have been using for a long time for sore nipples in nursing mothers. I cannot report a single case of failure when it has been used as directed. I would like my professional brethren to know of it, not that I consider it a specific, but that it has done me service in many cases when other means had failed. The nipple should be cleaned with a little warm water, to which has been added a small amount of borax, before applying.

℞.—Balsam Peru, ... ℥ss.
Tr. arnica, ... ℈ss.
Sweet almond oil, . . } āā ℥ss.
Lime water, . . . }

M. Sig.—Shake well and apply to nipples with camel's hair brush.

ACNE.—Prof. Shoemaker prescribed (*Med. Times*) for a case of seborrhœa sicca, accompanied by acne, conditions frequently seen in youth:—

℞.—Calcis sulphuratæ, ... gr. ½.
Ext. calami, ... gr. ij. M.
Make into a pill. Take three times a day.
Apply locally:
℞.—Extracti hamamelidis. fld. . f℥j.
Hydrargyri chloridi cor. . gr. viij.
Aquæ, ... f℥iv. M.

ARSENIC should not be prescribed for women during lactation, say Brouardel and Pouchet (*Jour. de Med.*) In proof of this position, they give a case in which the nursing infant died from arsenical poison, after an unsuccessful attempt had been made to kill the mother by arsenious acid.

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Experiments on nursing-mothers, and on the lower animals, confirm this opinion.

NEW TEST FOR SUGAR.—Mr. Marson gives (*Med. Press. and Circ.*) the following:—One and a half grains of the pure salt is dissolved in about 120 minims of urine by the aid of warmth, then add five grains of caustic potash and boil. If sugar be present a dark green precipitate will form, the superjacent liquid being reddish-brown or black, according to the amount of sugar. If no sugar be present the precipitate is greenish-brown in color, and the liquid is colorless.

PHYSIOLOGY "AS SHE IS TAUGHT."—The following (*Ind. Med. Jour.*) is from the pen of a school boy taught in one of our public schools. "The human body is made up of the head, the thorax, and the abdomen. The head contains the brains, when there is any. The thorax contains the heart, lungs and diaphragm. The abdomen contains the bowels, of which there are five - A, E, I, O, U, and sometimes W, and Y."

BRIGHT'S DISEASE.—Dr. Semmola recommends (*N. Y. Med. Rec.*) the following in the treatment of any form of albuminuria dependent on nephritis. Fifteen grains of iodide of sodium, thirty of phosphate of sodium, ninety of chloride of sodium, dissolved in water, and given in the twenty-four hours, alone or with milk.

TO CURE HICCOUGH.—Dr. Dresch (*Bulletin Gén. de Thérap.*) says, instant relief from hiccough may be had by causing the sufferer to close the external auditory meatus with the tips of his fingers, making firm pressure, while at the same time he is given water to drink in small swallows.

At New Glasgow, N.S., Dr. George Murray, aged 63.

By Dr. Murray's death Picton County loses one of her most clever physicians and surgeons. He was strictly honorable in his intercourse with his professional brethren, kind to the poor, and courteous to all.

BRIEGER says he has demonstrated that the bacillus of typhoid secretes a ptomaine which he has named typhotoxine. The injection of this into animals produces lesions similar to those caused by typhoid in man.

AN EMBARRASSING SITUATION. — Mrs. Mixer—How sad it is that Mrs. Smith should have had so much illness in her short life. People say, you know they will talk, and for my part I am sure of it, that her death was caused by the last operation she underwent.

Dr. Bismuth—Well, I should not like to say that. But perhaps in this matter I may not be quite unprejudiced, as it was I who performed the operation.—*Translated from German Puck.*

THE COMING ELECTION FOR THE SENATE OF TORONTO UNIVERSITY.—Dr. James Richardson, of Toronto, J. M. Gibson, M.P.P., of Hamilton, and Prof. Alfred Baker, are candidates for election to the Senate of Toronto University. The ticket is a strong one and we have no doubt will receive the hearty support of the medical profession throughout the country.

A Sanitary Convention will be held at Manistee, Mich., June 6th and 7th, under the auspices of the State Board of Health. There is a programme of interesting subjects laid down, and it is expected that the Convention will be a success.

DR. AUMAITRE (*Gaz. Méd.*) says he has had excellent results from salicylate of sodium in whooping cough. He gives two or three grains twice or thrice daily.

JONATHAN HUTCHINSON makes the suggestion that the long-continued administration of arsenic in large doses may produce a form of cancer, closely allied to epithelioma, but presenting peculiar characteristics.

DR. FORDYCE BARKER, says that the most valuable remedy for hemorrhages, occurring near or at the climacteric, is a combination of equal parts of fluid extract of hamamelis and fluid extract of hydrastis.

IT is stated that 15,000 children are annually killed by the use of soothing syrups and other similar preparations.—*Ex.*

DR. J. A. Temple says that the addition of a few drops of oil of sassafras to powdered iodoform, completely destroys its odor.

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Books and Pamphlets.

DISEASES OF THE HEART AND CIRCULATION IN INFANCY AND ADOLESCENCE. By John M. Keating, M.D., Obstetrician to the Philadelphia Hospital, etc., etc.; and William A. Edwards, M.D., Physician to St. Joseph's Hospital, etc., etc. Illustrated with photographs and wood engravings. Philadelphia: P. Blakiston, Son & Co. Toronto: Carveth & Co. pp. 207. $1.50. 1888.

This work takes up in an able and scientific manner diseases of the heart in children. This is a part of the field of medical science which has not been cultivated to the extent that the importance of the subject deserves. Most of us have been disappointed at the small amount of information which is to be gained from works on diseases of children, in this particular line. The matter has been collected chiefly from medical journals, clinical lectures, theses, and reports of societies. It is a fairly complete presentation of the whole subject, as applied to young persons, and will be of interest to every practitioner. It is a question whether the photographs, showing mitral disease, give the reader any clearer conception of the lesion than he could gain from the letter-press.

THE CONCISE IMPERIAL DICTIONARY OF THE ENGLISH LANGUAGE, LITERARY, SCIENTIFIC, ETYMOLOGICAL AND PRONOUNCING. By Charles Annandale, M.A., LL.D., Editor of the Imperial Dictionary, etc. Edinburgh: Blackie & Son. Toronto: J. E. Bryant & Co. $4.50. 1887.

We can heartily recommend the work as the best one volume English Dictionary we have seen. It fulfils all the requirements of a dictionary for ordinary use, and is up to the latest date as regards vocabulary, etymology and definition. The printing and binding are excellent, and altogether it is one of the most complete and perfect books in the market.

A MANUAL OF PHYSIOLOGY; a Text-Book for students of medicine. By Gerald F. Yeo, M.D., Dublin, F.R.C.S.; Professor of Phyisology in King's College, London. Third American from the second English edition with three hundred and twenty-one illustrations. Philadelphia: P. Blakiston, Son & Co; Toronto: J A. Carveth & Co. $3.00.

This book has now become so well and favorably known to students of physiology that a new edition will be of special interest. The arrangement is much the same as the previous edition, but a number of new cuts have been added, which materially improve the work.

The chapter on the nervous system is a volume in itself, and most ably and concisely handled, whilst on the phenomena of nerve and muscle, it is particularly to be commended. We consider it a most reliable work, and one which every student of physiology can carefully read with very great advantage and profit. It is especially to be commended as a text-book.

A MANUAL OF MEDICAL JURISPRUDENCE; with special reference to Diseases and Injuries of the Nervous System. By Allan McLane Hamilton, M.D., Consulting Physician to the Insane Asylums of New York, etc. Illustrated. New York: E. S. Treat & Co. P.p. 390. $2.75. 1887.

This is not a work on medical jurisprudence, in the ordinary sense of the term. Its contents are as follows: Insanity, Insanity in its Medico-legal aspects, Hysteroid conditions and feigned diseases, Epilepsy, Suicide, Cranial Injuries, Spinal Injuries. Thus it will be seen that it does not cover the ground usually included in works on medical jurisprudence.

The book is well written and the points made are illustrated by numerous cases. It seems to be a book more for the lawyer than for the doctor but will be useful as an elementary book of reference for either.

THE PASSAGE OF AIR AND FÆCES FROM THE URETHRA. By Harrison Cripps, F.R.C.S., Assistant Surgeon to St. Bartholomew's Hospital, etc., etc. London: J. & A. Churchill. Toronto: Williamson & Co. 1888.

An interesting account of this rare lesion, containing a short history of sixty-three recorded cases. The pathology, symptoms, prognosis and diagnosis are concisely and clearly given. As to operative treatment the author suggests three methods as theoretically possible, viz.: Colotomy, supra-pubic cystotomy and abdominal section.

THE TREATMENT OF HEMORRHOIDS BY INJECTIONS OF CARBOLIC ACID AND OTHER SUBSTANCES. By Silas T. Yount, M.D., Physician to St. Elizabeth's Hospital, etc.; 2nd edition. Lafayette, Indiana: The Echo Musical Co. $1.00.

In this little work of one hundred and two pages, a modern treatment for hemorrhoids is very ably handled; it is a practical work and will be well received by many practitioners.

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THE CANADA LANCET.

A MONTHLY JOURNAL OF

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Original Communications.

OÖPHORECTOMY, AS PERFORMED BY DR. JOHN B. DEAVER, OF PHILADELPHIA.

BY DR. INGERSOLL OLMSTED,

Superintendent of the Philadelphia German Hospital.

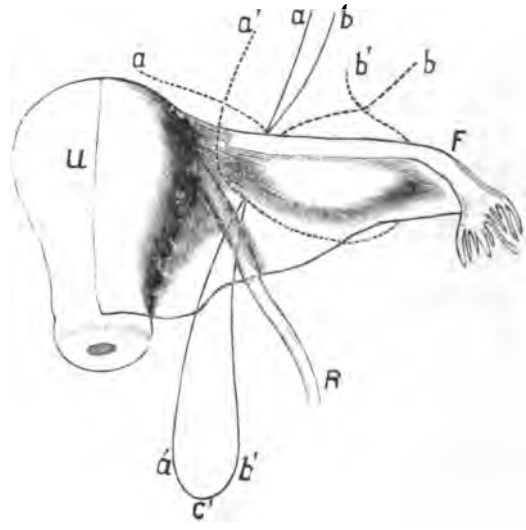
CASE.—N. W., æt. 36, married. Patient having been in hospital for a week; the bowels were thoroughly emptied two or three times by salines; appetite improved by tonics, and skin brought into healthy action by baths and friction. On 23rd Jan., '88, the day preceding the operation, the patient was given a saline cathartic, and had hair on abdomen and part of pubes shaved off.

Jan. 24. In a.m. patient was given an enema, and had abdomen and genitals washed with soap and warm water, the creases around umbilicus being thoroughly cleansed; this was followed by a boracic acid bath. The abdomen and pubes were then washed with the following solutions, in order named: linimentum saponis co., spts. turpentine, sulphuric ether, and solution of corrosive sublimate (1 in 2000). Towels wet with the last solution were then placed upon the parts until time of operation, four hours later. Some beef-tea, and milk and lime water were also administered.

The patient having been anæsthetized with ether, was carried into operating room and placed on a narrow, short table, with buttocks resting close to the lower end, over which the legs projected, supported by an assistant.

The operator and assistant were arranged as follows: the operator on patient's right side, chief assistant on left, behind whom was a third who took charge of instruments, etc., the fourth administered the anæsthetic, and the fifth supported the patient's legs.

An incision about two inches long in median line, was made, midway between the umbilicus and pubes, dividing skin, superficial and deep fasciæ. The small divided vessels were immediately caught up with hæmostatic forceps, a point which was particularly noticeable, and the surfaces of the wound sponged. The incision was then continued through the linea alba down to peritoneum. The operator and chief assistant now washed their hands in hot boiled water. The peritoneum was now caught up with forceps, incised with knife, and slit up to extent of 1½ inches, using finger as director. The operator again dipped his hands in hot water and then passed the index and middle fingers of left hand into abdominal cavity, hugged the under surface of abdominal wall, displaced



a a' and *b b'*, two halves of ligature which has been divided at loop.
c. The dotted lines show how the two ends of each ligature are brought together and tied.
r. Round ligament. *f*. Fallopian tube. *u*. Uterus.

upwards the great omentum, and located the fundus uteri. He then placed the index finger in front and middle finger behind the left Fallopian tube, by which means he was able to grasp the left ovary. It was bound down to the floor of the pelvis by adhesions, which having been carefully separated by fingers, it could be brought to the opening in abdomen, when its pedicle was transfixed, close to the cornu of the uterus, by an ordinary aneurism needle threaded with strong twisted Chinese silk. The loop of silk was then grasped and needle withdrawn. The loop was then divided,

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and each half of ligature was tied tightly around the corresponding half of the pedicle; the one ligature thus encircling the Fallopian tube close to cornu of uterus, the ovarian ligament and part of broad ligament; the other half, the remainder of broad ligament; the whole pedicle was then tied with the remaining part of one of the ligatures. The pedicle was then divided with scissors close to the point of ligation, sufficient only being left to prevent the ligatures from slipping off. The stump was sponged off carefully and held up for a short time, when, no hemorrhage occurring, it was allowed to drop back into the abdominal cavity. The right ovary was now grasped and found enlarged, and bound down in Douglas's pouch by adhesions, being closely adherent to the rectum, about one inch above the internal sphinc ter. In order to get more room, the superficial part of the wound was enlarged three-quarters of an inch. The adhesions were separated, the ovary brought to the abdominal opening, and the pedicle treated in the same manner as its fellow.

The abdominal cavity was then carefully wiped out with soft sponges, wrung out of hot boiled water. Two sponges were then left in abdominal cavity, attached to a sponge-holder, until sutures were inserted, when they were removed. The stitches were of silk, and included the entire abdominal wall and peritoneum, and were placed about three-eighths of an inch from the edge of the wound, and half an inch apart.

To procure a nicer apposition, slight traction at either end of the wound was made with a tenaculum, before tying the sutures. The wound was now washed with boiled water, well dusted with iodoform and dressed with about sixteen layers of carbolized gauze, the whole being kept in place by a nicely adjusted, many tailed, flannel bandage. The only antiseptic solution used was boiled water, in which all instruments sponges, sutures and ligatures were cleansed previous to use.

The thread was prepared by being first placed in boiling water for a few minutes and then wound on glass spools, enclosed in a glass box having small holes in the top (one over each spool), through which the thread could be drawn. Previous to the thread being used, it was drawn through a towel wrung out of boiling water.

AFTER-TREATMENT.—During the first twenty-four hours the patient received only a little soda water to sip. She also had morph. sulph. gr. $\frac{1}{8}$, pot. brom. gr. xxx, the first night. This was the only narcotic given during treatment. The next twenty-four hours she received a teaspoonful of magnes. sulph., every four hours, in soda water, till bowels moved; also barley water and some beef tea. On the third day some milk and lime water was administered. Soft food and animal broths were given her on the fourth day, and the bowels were regulated with salines as before.

During the second and third days the patient suffered from pains in the lumbar region. On the third day she had the usual bloody discharge from the wound, which lasted more or less for five days.

The temperature ranged from 98°–99½° F., and never rose higher than the latter figure; pulse between 80–100. On the ninth day, the patient being in good condition, the dressings were removed for the first time, when the wound was found to be perfectly united. The stitches were then removed, the parts washed and dried, and strips of adhesive plaster and the many tailed flannel bandage applied to support the abdominal wall.

The patient was allowed to sit up on the sixteenth day, and left the hospital on the twenty-third day after operation. Since leaving the hospital, the patient has greatly improved, and gained flesh, with no return of her former symptoms.

The unique element in the above description of the operation, is the entire setting aside, during the operation, by one of the first gynecologists of the day, of all antiseptic measures, except boiled water, and assured perfect cleanliness. The result, as shown by the patient's rapid and uninterrupted recovery, warrants my placing it before your readers.

LARGE SPINDLE-CELLED SARCOMA OF THE BRAIN IN A GIRL ÆT. 16.

BY G. A. BINGHAM, M.D.

Pathologist to Toronto General Hospital.

Mr. Auld, who attended her prior to her admission to the General Hospital, kindly furnished me with the following history of this rather interesting case:

Nellie S., æt. 16, has always been in good health, except seven years ago, when she had typhoid

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fever, from which she made a good recovery. Family history good.

She first noticed symptoms of present illness about the beginning of August, 1887, when she began to suffer from headache and occasional restlessness at night. She has been gradually growing weaker since that date, although there has been no marked loss of flesh. Saw her first on Saturday, Nov. 26th, 1887; she was very weak, anæmia pronounced, headache intense, and neuralgic in character, pulse and temperature normal. Her menses had been suppressed for about three months. Prescribed—Quiniæ sulph.; tr. ferri mur.; tr. nuc. vom.; et. R. Pil. aloes et myrrhæ et ferri.

Dec. 1st—Complains of dimness of vision; headache continued, and pupils slightly dilated; temperature and pulse normal; vomited two or three times, matter of a greenish color.

Dec. 3rd—Completely blind; headache continued, pulse and temperature normal; examined urine and found it normal.

Dec. 6th.—Very drowsy, sleeping most of the time; other symptoms same as before.

Dec. 7th—Last night headache was intense; gave, chlor. hyd.; morph. sulph. This gave relief, and she slept for the remainder of the night.

Dec. 10th—Has been troubled for two days with incontinence of urine; still continues drowsy. Had several screaming fits last night, presumably hysterical; anæmia seems improved.

Dec. 15th. Appetite morbid; she can distinguish objects in the room.

Dec. 24th—Completely blind again.

This is all the history I have until Jan. 9th, when she was admitted to the General Hospital. After this date until her death she was most of the time in a semi-comatose condition, quite blind; had occasional screaming fits and vomited a few times.

The coma gradually deepened, and she died Jan. 12th. I made the post-mortem on the same day.

P.M. appearance.—Body in fair state of nutrition; eye-balls, prominent; lungs, normal; heart, anæmic, with beginning fatty degeneration; stomach and gall bladder, normal; liver, highly congested, normal in size and friable; spleen, almost colorless; left kidney, smaller than normal, capsule easily separated; right kidney, normal; uterus and ovaries normal; bladder, full of clear urine; brain, blood vessels on dome of brain were congested. In right frontal lobe was found a hard, lobulated tumor as large as an orange, extending to the base of the brain and upwards to within a few lines of the convex surface, extended backward to the ascending limb of the fissure of Sylvius, and formed the anterior boundary of the anterior horn of the lateral ventricle, upon which it encroached. It had a small protuberance from its left side, extending into the left frontal lobe.

The tumor was indistinctly encapsuled, and the brain substance surrounding it was softened and easily washed away by pouring water upon it. This clearly out-lined tumor, on being examined microscopically by Dr. Teskey and others, was found to be a large spindle-celled sarcoma, with here and there a giant cell. In places, the process of degeneration was begun and the cells were beginning to break down.

Remarks.—I think it is worthy of notice, that there were no symptoms observed until about five months prior to her death, and that, even then, it was not thought necessary to call in a physician until a month and a half before she died.

About a month after she first noticed symptoms of trouble, her menses became suppressed and remained so until her death in spite of medicinal treatment. Was this the result of the anæmia, or were both connected reflexly with the cerebral tumor? I have been informed that her surroundings were all that was desirable as regards sanitation, and that she had abundance of nourishing food.

ON THE NECESSITY FOR A MODIFICATION OF CERTAIN PHYSIOLOGICAL DOCTRINES REGARDING THE INTERRELATIONS OF NERVE AND MUSCLE.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.*

TWO EXPERIMENTS.

Here are two experiments which show that the combined effects of strychnia and electrization are equivalent to the destruction of the spinal cord. In a rabbit undergoing the convulsions of strych-

* Read before the Physiological Section of the Ninth International Medical Congress, held in Washington, September, 1887.

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nia poisoning, the spasms will be at once arrested on breaking up the spinal cord by a wire thrust into the spinal canal. If instead of destroying the spinal cord in this manner, it be subjected to electrization, the spasms will be averted, or arrested if already present. The rabbit dies, but without the characteristic spasms *(a)*. Is a powerful electric current needed here? Not at all. Quite a moderate current will suffice; because the strychnia poison is causing general contraction of the arterioles *(b)*, filling the veins and deoxygenizing the blood. Asphyxia is also setting in from the same cause, joined with fixation of the chest by spasm of its muscles, whose motor nerves are being paralyzed *(c)*. Electrization produces parallel effects and intensifies the fatal processes already in operation. A weak current suffices to complete the arterial emptiness, the venous engorgement and the non-oxydization of the blood. The spasms cease probably because such blood as is now present is inimical to the life of the muscle, and destroys its contractile energy more rapidly than no blood at all *(d)*.

If the theory of the day were true, the rabbit ought not to have died! With the stimulating and vitalizing action of an electric current, added to the previous exhilaration of strychnia stimulation, the rabbit should have lived and flourished, in the interests of the theory, which alas! as usual, is found to be out of harmony with the facts. Why does Dr. J. Russell Reynolds say that "it would be very unwise to use any form of electricity during the period of shock"? (*e*) Why do eminent authorities discourage its employment in cases of suspended animation, as in apparent death from drowning? (*f*) Why does Dr. B. W. Richardson, F.R.S., of London, write: "I feel it too unreasonable to recommend galvanic action as a means of resuscitation in threatened death from chloroform." . . . . fearing least under the semblance of restoring life he should clench death! (*g*). These are precisely the conditions under which a "stimulant, tonic and vitalizer" should be eagerly sought for and diligently employed! It is evident that electrization is none of these, and therefore it is forbidden "in any form."

I think I am justified in claiming for the foregoing facts that they prove, as fully as any doctrine in physiology can be proved, that electrization as ordinarily employed is a paralyzing process.

BENEFICIAL EFFECTS OF ELECTRICITY.

Electricity is no doubt a valuable therapeutic agent, and like other paralyzing agents, does good in appropriate cases. But its beneficial effects may all be accounted for in strict accordance with its *role* as a paralyzer of nerve activity. Thus, it eases pain in a perturbed nerve by temporarily paralyzing it. It lowers the activity of the vaso motor nerves, and by thus setting free the contractile energy of the muscle it reduces the calibre of the arterioles, lessening or curing congestion, and consequently starving the hypertrophic growths. In other cases, by a momentary arrest of nerve action in the motor trunks, it induces prompt spasmodic contractions in the muscles, thus exercising them, and by attracting blood and pabulum to wasted muscles or tissues in the same way, it improves their nutrition. In chronic indurations and hyperplastic growths the purely chemical effects of the opposite poles, or electrodes, so modifies the nutritive activities of the tissues as to prove beneficial in restoring a more normal condition. Thus the curative effects of electrical treatment are all accounted for in strict accordance with its *role* as a paralyzing agent. To proclaim it, therefore, as "nature's own tonic," or to laud it as a "vitalizer," or extol it as the ally of nerve force, may be pardonable in the instrument makers, but is to be condemned on the part of scientific medicine.

HOW THERAPEUTICS HAS SUFFERED.

It has sometimes been remarked that the department of therapeutics lags behind other branches of the medical art. Perhaps it will be pardoned if I venture to suggest that therapeutics has suffered greatly from the adoption of the *dictum* that electricity is a *stimulus* to nerve function. How much of a huge and hypothetical inhibitory system has found, perhaps, its chief support in this very error. When electricity stopped the heart, some mechanism had to be found for the arrest of its action by a stimulus. On what must the excitation expend itself? Not on the proper motor ganglia of the heart, which a stimulus would drive faster. To

(a) Matteucci, Periera, Radcliffe. *(b)* Fothergill.
(c) Ringer. *(d)* Foster, Phys., pp. 126, 833.
(e) Lect. on Clin. Uses, p. 84.
(f) Dr. Ringer, Ther., p. 792.
(g) Med. Times and Gazette, 1861; Braithwaite, Jan., 1873, p. 256.

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meet the exigency of the theory it was necessary to imagine a purely hypothetical system of inhibitory nerves, the excitation of which, by antagonizing the proper motor ganglia of the heart, would bring it to a standstill. It is worthy of notice that in this experiment "the most marked effects are produced when the electrodes are placed on the boundary line between the sinus venosus and the auricles." (*a*) Now this is the precise location of the chief motor ganglion of the heart in the frog, —the animal in which this observation has been made, so that the assumed stimulus has to pass over the proper motor ganglion in order to reach the supposed inhibitory ganglia, farther away in the septum dividing the auricles! It needs explanation why, under these circumstances, the "stimulus" should ignore the motor ganglion in order to excite its rivals, which are further out of reach of the current.

The theory of the day on this subject, or rather the "temporary hypothesis," as Dr. M. Foster calls it, necessitates that the action of drugs be wrought out amid the struggle for supremacy between two rival nerve factions or camps, as it were, with results which are far from encouraging. For instance, a recent physiological work on the "Action of Medicines," informs us in the opening paragraph regarding belladonna, that "It paralyzes the motor nerves in frogs at the same time that it excites the spinal cord; after they recover from the motor nerve paralysis the tetanic symptoms of spinal stimulation appear"! Would it not be well to try how far the results might be simplified on the view that, under the circumstances, the heart's action ceased from paralysis of its motor ganglia;—thus dispensing for a time with this part of an inhibitory incubus, which threatens to become unmanageable through its very complexity?

THE VOLUNTARY MUSCLES.

The foregoing considerations have reference especially to the relations of nerves to involuntary muscles. Why it is that muscles of the voluntary or striated class do not also pass promptly into a state of spasm or contraction when their motor nerve trunks are cut, or when the body is dead, I am unable to explain; unless it be admitted that here the motor nerve trunks are more than mere carriers of nerve force—are in fact, with the nuclei and nerve plates at their endings, miniature magazines of nerve energy, which continue for a time to restrain the muscle after section of the nerve trunk or after somatic death.

POST-MORTEM MUSCULAR CONTRACTION.

If such an hypothesis were admitted it would serve to explain certain phenomena for which an explanation is necessary, such as the remarkable contractions of muscles which are known to occur in certain cases after death. There can be no doubt that the activity of both nerve and muscle survives for a time the death of the organism. The life of the nerve, which is more intimately dependent upon vital conditions, succumbs before that of the less vital and more enduring contractile power of the muscle (*b*). And as one fasciculus, or one muscle, or one group of muscles attains its freedom, the contraction which follows gives rise to the movements referred to.

RIGOR MORTIS.

Is a muscle contracted or shortened when it passes into rigor mortis? All observers agree that such is the case, and Dr. M. Foster tells us that the shortening and contraction "may be considerable." (*c*) Is this contraction and shortening the last act of the muscle in dying, or does it occur after the actual death of the muscle—that is, in a dead muscle? Let us consider the latter view first, since it appears to be the one in favor by our physiological teachers at the present time.

If the muscle be dead, not only is its nerve force extinct, because nerves die first, and consequently there can be no stimulus from nerve energy to cause the muscle to contract, and further, the chemical changes in the muscle which generate its contractile force must also have ceased to operate, so that its contractile power is at an end. In the assumed absence of contractile energy, it has become customary to attribute the death-stiffening to coagulation of the muscle plasma in the muscle. This would account for the rigidity of the muscle, but would fail to account for the contraction and shortening admittedly present. Muscle plasma, in the living muscle, bears the same relation to the myosin of dead muscle that certain albuminous substances in the circulating blood do to fibrin, after blood is drawn off in a vessel. According to Dr. Lionel Beale, fibrin is "non-living matter, and

(*a*) Dr. M. Foster, Phys., p. 232.

(*b*) *Ib.*, p. 121. (*c*) *Ib.*, p. 94.

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is the product of the death of albuminoid bioplasm." (*a*) If this be true of fibrin, it may fairly be assumed to be true also of myosin, which closely resembles the former. Coagulated plasma, or myosin, is dead, and if the muscle also be dead, and its inherent contractile power at an end, in what manner does dead myosin acting on a dead muscle produce so perfect a counterfeit of muscular contraction, that one of the keenest observers of the day pronounced it "The most steady and persistent contraction which muscle can possibly exhibit"; (*b*) so perfect a counterfeit, indeed, that our eminent English physiologist, the late Dr. Carpenter, employed the microscopical appearances of muscle during rigor mortis as the chief basis for his description of the changes taking place in ordinary muscular contraction, as he himself has told us (*c*).

Again, the reaction of a living muscle in repose is neutral, or alkaline, but after exercise, or tetanus, the reaction becomes acid, an effect in some way depending upon the chemical processes in the muscle associated with its contraction In rigor mortis the reaction becomes "most distinctly acid" also. But if the muscle be already dead and these chemical changes at an end, what is the source of the acidity? To the presence of this acid, the coagulation of the myosin and the rigidity of the muscle, are of late attributed. But since the acidity is the *result*, or *effect*, of muscular contraction in the living muscle, how can it be the *cause* or starting point of the contraction and stiffening in the dead muscle?

Dr. Lauder Brunton finds that muscle plasma "coagulates too quickly in the muscles of warm-blooded animals to allow of its preparation from them." Now rigor mortis does not usually set in for several hours after death,—Dr. Brown-Sequard found it to be ten hours in four rabbits,—and its onset may even be artificially delayed. The statement, therefore, is only explicable on the supposition that coagulation of the muscle plasma and rigor mortis do not occur together—that is, as cause and effect. It would seem to be implied that the muscle plasma coagulates too early to be the cause of rigor mortis. Dr. Brunton further shows that the muscle plasma may coagulate without producing rigor mortis. In an experiment, detailed on page 363 of the Hand-book, it is shown that, if half a fresh muscle be immersed for a few minutes in water at a temperature of 104° Fah., the reaction will be acid, as Dr. Brunton says,—"from development of rigor mortis" The other half of the muscle is to be placed for a similar time in boiling water; and here the reaction "will be alkaline." Dr. B. adds,—"Before rigor mortis had time to set in, the albumen of the muscle was coagulated. This coagulation set free a quantity of alkali, hence its reaction." Dr. Brunton's exposition of this experiment, if correct, would be fatal to the myosin hypothesis, since if the coagulation of the muscle plasma be attended by an alkaline reaction while in rigor mortis, the reaction is strongly acid, the former could not be the cause of the latter, and they must be regarded as separate and distinct processes.

The foregoing difficulties certainly seem to create distrust in the myosin hypothesis; and we now turn from it, with its dead muscle and inert myosin, to the other aspect of the case, under which the complete cessation of nerve activity and the final contraction of the muscle marks the onset of rigidity. "The rigidity, the loss of suppleness and the diminished translucency," observable in the muscle in this state, are reasonably accounted for by the condensation of tissue which is here permanent, as the contraction is continuous. That a certain relaxation subsequently occurs, during which meat or game, which is at first tough, becomes more tender and toothy, is attributed by M. Rosenthal to the action of the acid referred to, which relaxes the connective tissue which holds the fibres together, so that the latter separate more readily (*d*). This is but the beginning of the chemical change which ends muscular contractility in the ruin of putrefaction. The following remarkable series of conditions are common both to muscular contraction and to rigor mortis: In both the reaction becomes acid. In both carbonic acid is set free in the muscle. In both the temperature rises,—often markedly so in rigor mortis. In both the muscle is contracted and shortened; in some cases, as in death from cholera, "rigor mortis may be said to be simply a continuation of the

(*a*) Disease Germs, pp. 136, 137.
(*b*) Anstie, Stim. and Narc., p. 70.
(*c*) Hum. Phys., 5th Amer. Ed., pp. 307, 308.

(*d*) Muscles, etc., p. 87-8.

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cramps and contractions occurring during life." (*d*) In both, glycogen is converted into sugar. Do not all these coincidences in appearances and effects point strongly to a similarity of processes in muscular contraction and cadaveric rigidity? Of course the parallel is not complete in every particular. It is said that the muscular sound emitted during ordinary muscular contraction is absent. This sound is attributed to vibration of the muscle substance. Might it not be due in part to the altered circulation in the ordinary muscle during contraction, for it is well known that the blood channels, under certain circumstances, give out a musical note? In rigor mortis, of course, the circulation of the blood ceases, as does also the removal of waste products. That the muscle substance continues to vibrate in rigor mortis is evident, because chemical changes are still taking place there, as is shown by what is said above, and especially by "a marked accession of heat"; (*b*) and "heat is only another form of motion." (*c*) So that, after all, it would seem as if the atoms of the muscle continue to vibrate, even though no sound is audible.

That indefatigable observer, Dr. Brown-Sequard, some time ago, related to the Biological Society of Paris, "some experiments he had made, by a special instrument, to determine the movements of single muscles in the body after death. He found that there was a very considerable degree of contraction and relaxation, as much, for example, as two and a-half millimetres in a muscle measuring only six millimetres in length. He thought that the results of his experiments disproved the theory of coagulation in the muscular tissue as the cause of cadaveric rigidity (*d*).

I am not necessitated to prove that rigor mortis is due to post-mortem contraction of the muscles; but in the absence of any other satisfactory explanation of this state, I am entitled to refer to it in support of my thesis; and I would ask those who dissent from this view, and who, in consistence with their theory, must hold that nerve stimulus is necessary to muscular contraction, to account for the presence of nerve force under the conditions referred to.

(*a*) Wood's Prac., Vol. I, p. 717. (*b*) Foster, p. 542.
(*c*) Rosenthal, p. 42.
(*d*) N. Y. Med. Rec., Jan. 9, 1886.

SPASMS IN VOLUNTARY MUSCLES.

It would, perhaps, be no difficult task to show that even voluntary or striated muscles pass into a state of partial spasm or contraction during life, much oftener than might at first sight appear, under a form of "irritation," which may very properly be regarded as consisting in a lowering of nerve activity.

"Irritation" is not increased nerve action. A splinter under the nail is attended by a loss of tactile sensibility. A mote in the eye irritates, but it obscures vision. Why should indigestible food oppressing the digestive functions of a child be regarded as a source of increased nervous "discharges"? Such sources of irritation ought to be considered as depressing, rather than exciting nerve action; a view of the case for which authorities have been already quoted, and others are to follow.

Dr. Anstie wrote, "convulsive action of the muscles, as everyone knows, are very common complications of neuralgia," and the same acute observer held that "pain is not a true hyperæsthesia; on the contrary, pain involves a lowering of nerve function" (*e*).

Dr. Hilton, in his work on "Rest and Pain," points out that the irritation of peritonitis induces contraction of the abdominal muscles. In the same way, pleuritis renders the chest-walls fixed by spasmodic contraction of its muscles; while the muscles of an inflamed joint, he says, "are invariably contracted, and continually tend to increased flexion of the limb, not because such a position is easiest for the patient, which is not always the case, but owing to a reflex perturbation transferred to the muscles of the adjoining surface." (*f*) That peripheral irritations *do* produce nerve paralysis, must be admitted on the authority of Dr. Brown-Sequard (*g*), and others.

What is the "irritation" in these cases but a mild form of nerve paresis, just as "the irregular mucular action" which shows itself in tremor, fibrillary contractions, or in spasm, denotes the failure of the ordinary nervous restraint over the corresponding muscles.

Why should "morbid conditions of the medulla oblongata," avowedly depending on "defective

(*e*) Anstie, Neural., p. 12. (*f*) *Ibid.*, p. 96.
(*g*) Lect. Cent. Nerv. Syst., pp. 160, 170.

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nutrition," be supposed to give rise to "explosive and atactic manifestations of nerve force," (*a*) when they are much more naturally explained as depending upon nerve failure? The weak point in the theory of the text-books is, that nerve force is required to be displaying the full activity of robust health, and even more, in exaggerated "discharges" and "explosions" at the very time there is the most undoubted evidence of nerve failure and exhaustion. Why, in cases of "early and late rigidity" of muscles, should a clot in the brain be held to be an exciting irritant, seeing that the brain tissue is wholly insensitive, and may be cut, pricked or seared with a red-hot iron without eliciting any signs of pain? It is difficult to express here the multitude of facts which show the very frequent association of paralysis and spasm in disease of the brain and spinal cord. The paralysis is of the nerve and the spasm of the muscle—conditions very embarrassing to the theory of the day, but consistent and harmonious states in the theory of these pages. Is there not much significance in the statement of Seguin, that "a lesion of the lateral columns of the spinal cord produces paralysis with contracture" of muscles. Why? Because, as Dr. Brown-Sequard has shown, "the motor fibres run on the exterior of the cord in its antero-lateral columns." (*b*) Motor nerve disease and destruction induces contraction of the muscle, which later on becomes atrophied, partly, no doubt, from inaction.

It is on record, too, that while injury of the vagus nerve induces contractions of the gastric muscle, injuries of the spinal accessary nerve are attended by spasms of the trapezius or sterno-mastoid muscles (*a*). Other examples of a similar kind are not lacking.

One might imagine that Dr. B. W. Richardson, F.R.S., intended to endorse the theory of these pages, when he wrote as follows regarding the convulsions of the drowning. He says:—"The convulsive movements that are seen are unconscious movements; they are the same as those which mark the period of stupor, in death by hanging, by noxious vapors, by concussion; and they are simply the results of action of muscles from which *the controlling power of the nervous centres has been removed*" (*e*). [Italics mine]. Dr. Henry M. Lyman, A.M., M.D., would appear also to have had a commendable distrust, if not an entire disbelief, in the theory of the text-books, when, in referring to "a temporary increase of muscular movement directly caused by the abolition of some special source of nervous impulse," he says:—"Witness the tremendous *liberation of muscular movement* which follows a *paralysis* of the influence of the brain, by the sudden decapitation of a fowl, for example" (*f*). [Italics mine].

One of Dr. Ferrier's experiments is so much in point here, that, at the risk of being tedious, I cannot forbear a brief reference to it. The right brain of a monkey had been exposed and subjected to faradization. Next day the animal "was found perfectly well." "Towards the close of the day following, on which there were signs of inflammatory irritation and suppuration, it began to suffer from choreic spasms" which rapidly assumed an epileptiform character. Next day hemiplegia became established with the usual symptoms of "paralysis of the left arm and partial paralysis of the left leg." "On the day following paralysis of motion was complete over the whole of the left side and continued so till death, nine days after.' Dr. Ferrier says, "In this we have a clear case of vital irritation producing precisely the same effects as the electric current, and then destruction by inflammatory softening resulting in complete paralysis, etc.," (*g*).

On Dr. Ferrier's view, the stage of apparent inflammatory action was accompanied by increased production and discharge of nerve energy, as seen in the choreic and epileptiform spasms. But "Recent studies show that the inflammatory process is a destructive and depressive one, so far as the tissues are concerned; that it does not irritate and kindle into increased activity the protoplasm of the cells, but rather the reverse" (*e*). So that it is now definitely understood that the inflammatory process in brain tissue does the reverse of Dr. Ferrier's view, and paralyzes rather than excites nerve energy.

Observe here, that the spasms of the muscles,

(*a*) Anstie, Neural., p. 156.
(*b*) Erichsen, Concus. Spine, pp. 29, 30.
(*c*) Bryant's Surgery, p. 208.
(*d*) Braithwaite, July, 1871, p. 255.
(*e*) Anæsthetics, Wood's Lib., p. 26.
(*f*) Functions of Brain, pp. 200, 202.
(*g*) Editorial, N. Y. *Medical Record*, Jany. 30t 1886, p. 128.

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on Dr. Ferrier's own showing, began to occur contemporaneously with the "signs of inflammatory irritation and suppuration," and as this term "irritation" (on so good an authority as the able editor of the N. Y. *Medical Record*), must now be interpreted to mean depression and lowering of cell activity, it follows that the spasms referred to occured from the absence or failure of nerve energy, and not from its undue excitation. Observe, too, that Dr. Ferrier held that this "vital irritation," as he saw it, but which we now know is depression or paralysis, produced "precisely the same effects as the electric current." Another evidence of the paralyzing character of electricity!

(To be continued.)

Selected Articles.

A CASE OF ALARMING HÆMORRHAGE FOLLOWING EXCISION OF THE TONSILS.

The infrequency of such cases as the following would seem to justify its publication:

Norman D., American, twenty-five years of age, law student and athlete, came under my care for post-nasal catarrh and hypertrophy of the tonsils, in May, 1887. Having no faith in topical or general treatment of such a condition of the tonsils, excision was advised and done at my office. Mathieu's tonsillotome was the instrument used; as it cuts from behind forward there is no danger of wounding the pillars of the soft palate, and the screw by which the fork of the instrument is adjusted enables one to cut more or less of the tonsil as is desired. The tonsil was very hard and the cutting was accompanied by a grating noise which was noticed by the patient, as well as myself at the time. The usual amount of hæmorrhage followed, but was soon checked by sipping a solution of the tanno-gallic acid gargle of the London Throat Hospital Pharmacopœia (M. Mackenzie).

Mr. D. left my office at 4 p. m. in good spirits, expressing himself as feeling relieved that the slight operation was over. He ate his dinner at 6 p. m. and said to the family he did so without pain. Soon after he dressed himself and attended a wedding, in church, where, at about 9.30, he complained of a sudden faintness, was assisted to the open air, when he immediately vomited a large quantity of blood—variously estimated by his friends, at from half a pint to a quart. He was taken to his home and put to bed where he again vomited over a pint of dark blood. A neighboring physician was called, and his father came for me.

I saw him at 11 p. m., he was then pale, somewhat nauseated, but as yet there were no signs of prostration. With the help of Dr. Little, who had been with him for an hour, I syringed his throat with hot water, wiped away the clots, and examined carefully for any bleeding vessel. None was found, but a very free oozing of blood was going on from the whole cut surface of the right tonsil. Pressure was made with a wad of styptic cotton over the cut surface, and continued as long as he could bear it, but this was for a few minutes only, as the presence of the forceps provoked a violent retching, followed by vomtiing of blood. Trial was then made of the tanno-gallic acid gargle above mentioned, hot water, cold water, ice, solution of salicylic acid in hot water, Monsel's salt applied to the cut surface and pressed down firmly, the patient lying on his right side. Thus we went through a long list of styptic and astringent remedies, each appearing to check the flow for a time, but as soon as we suspended our efforts for a few minutes he would complain of nausea, and soon after vomit a bloody fluid, showing that blood was still trickling down his throat and being swallowed. Hypodermatic injections of ergotin were given and later on brandy.

About three in the morning Dr. Spier was called, and upon his arrival another careful examination of the throat was made, but again we failed to find any special point of bleeding—as before, it was seen to be a general oozing from the whole cut surface. Dr. Spier made trial of pressure with an improvised clamp, but was able to keep it up for a short time only. He then advised a continuance of the astringents and gave his opinion that it would be checked by them. We continued our efforts in this direction until 10 a. m., when the condition of the patient, cold perspiration, pulse at the wrist very feeble, complaining of thirst and a sinking feeling, for which frequent hypodermatics of brandy were given, made it plain that some more vigorous steps must be taken at once.

Dr. Little, who had been with me through the night, very kindly went for Dr. Spier with the request that he come to our assistance prepared to tie the carotid artery. This he promptly did, the ligature being placed upon the common carotid artery above the omohyoid muscle. I wish to state here that this operation was done at my request, and the entire responsibility for the choice of the common carotid artery rests upon me. This in view of possible criticism.

The tightening of the ligature we expected would arrest the hæmorrhage, but in this we were disappointed, for it continued, as nearly as we could judge, exactly as before. It was now

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thought best to call another surgeon to our assistance and a telegram was sent to Dr. Sands asking him to come prepared to transfuse the patient if it should seem best.

The artery was tied at about 11 a. m., and the bleeding continued until about 2 p. m. The last remedy made use of before the bleeding ceased was a douche of very hot water which was used by my friend, Dr. McNaughton. I do not attribute the checking of the hæmorrhage to the hot water however, as it had been used a number of times before during the night. The patient was now pulseless at the wrist and hypodermatics of brandy were frequently given.

Dr. Sands, who arrived at this time, at once proceeded to transfuse, about twelve ounces of a saline solution being slowly injected into the radial vein. The pulse returned at the wrist while it was being done.

From this time on there was no further hæmorrhage and the only bad symptom was a pretty severe chill about two hours after the transfusion, following which the temperature rose to 102°, it, however sank to 99° by the next morning and never rose above that point again. The patient was given nourishing food and *no* medicine; in a couple of days he developed a good appetite. The ligature came away from the carotid on the twenty-first day. The transfusion wound healed without suppuration. The operation was most skilfully done with thorough antiseptic precautions. As soon as the ligatures came away the patient was allowed to sit up and in a week he rode out. When last seen by me, a month later, he still showed very plainly the effects of the hæmorrhage.

The following are some of the points which seem to be of interest in connection with this case:

1. *As to the frequency of such cases.* Different writers make varying statements on this point. Sajous says profuse hæmorrhage occurs perhaps once in five hundred times, while an alarming flow does not occur once in a thousand times. According to Cohen, there are several records of more than a thousand operations at the hands of the same surgeon without the occurrence of any serious hæmorrhage M. Mackenzie makes the following statements of his own experience: "As regards hæmorrhage following excisions of the tonsils, I have only once met with a case in which the bleeding appeared actually to endanger life." In the past fifteen years I have done this operation about two hundred times, and have never met with a case of unusual hæmorrhage before the present one. Taking an average of the statements of the authors I have been able to consult, I should say that such a case as this one occurs about once in a thousand operations. There are quite a number of cases recorded in which the hæmorrhage has proved fatal.

2. *Causes and source of the bleeding.* The tonsil is situated between the pillars of the soft palate "in a sort of niche," resting on a layer of loose connective tissue, by which it is separated from the superior constrictor muscle. The whole gland can be enucleated by the fingers, or a blunt instrument, as was an ancient practice. As the internal carotid artery is external to the superior constrictor muscle it is plainly impossible to wound this vessel in excising the tonsil with any of the tonsillotomes now in use. In the reported cases of injury to this vessel while excising the tonsil, a bistoury has generally been the instrument used. Velpeau reported four cases in which the internal carotid artery was laid open while a portion of the tonsil was being cut away with a bistoury. The vessels which supply the tonsils are the ascending palatine and tonsillar arteries (deep cervical branches of the facial), the dorsalis linguæ from the lingual, the ascending pharyngeal from the external carotid, and the descending palatine from the internal maxillary. Not only do these vessels anastomose freely with each other, but also with those of the opposite side. Ordinarily when a portion of the tonsil is excised the hæmorrhage is free, but soon ceases spontaneously by the retraction of the cut vessels into the soft tissues of the tonsil. But if the tonsil has undergone fibrous degeneration, or is in a condition to which the term scirrhus has sometimes been applied, the cut vessels are held open and prevented from retracting and thus putting a stop to the flow. Sajous says that in the cases of profuse hæmorrhage which occurred in his practice, the tonsils were exceedingly hard to penetrate, which led him to think the cut vessels were kept open by surrounding fibrous elements adhering to them. Schede has remarked, "That very firm fibrous degenerated tonsils specially tend to after-hæmorrhage, in that the vessels within the stiff tissues remain gaping." By referring to the history of this case as given above, it will be seen that both the patient and myself noticed the hardness of the right tonsil, it cut like a scirrhus tumor.

Dangerous and not infrequently fatal hæmorrhage follows this operation if the subject is a "bleeder." Whether Mr. D. was or was not a hemophilic, was discussed at the time. We were told that he, had a cousin on his mother's side who was a bleeder, and that he himself bled till he fainted after the extraction of a tooth about a year before the operation on his tonsils. There was, however, no history of his ever having bled unusually from any of the accidents of childhood, nor any suffering from swelling of the joints; nothing, in short, but the bleeding which followed the extraction of a tooth in his twenty-fourth year. There was no hæmorrhage from the left tonsil nor from either of the wounds inflicted by the surgeons. "In true hemophilia the tendency to

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bleed usually shows itself in the first year of life and in the great majority of cases before the fifth year." "Recorded cases of the disease appearing first later than the second dentition are not trustworthy" (Legg–Quain's *Dict. Med.*, art. "Hemophilia"). Other authorities might be quoted to the same effect, but I think it is plain that Mr. D. is not a "*bleeder*," and that the cause of this hæmorrhage was the fibrous condition of his right tonsil, and the source of the hæmorrhage was the above mentioned vessels which normally supply the tonsils.

3. *How to stop the hæmorrhage?* Sir M. Mackenzie in his work on *Diseases of the Throat and Nose*, vol. i. page 86, says that, "The use of the tanno-gallic acid gargle of the Throat Hospital Pharmacopœia will *at once* arrest the hæmorrhage. Half a teaspoonful of the remedy should be slowly sipped at short intervals. During the act of deglutition the styptic is worked into the cut surface of the tonsil and the hæmorrhage is effectually restrained in all cases." If this statement were true in *all* cases it would be a sufficient answer to the above question, but, unfortunately, it does not always succeed in the hands of other surgeons. It was used in the case of Mr. D. and did not appear to be any more effectual than several other styptics which were tried, and all failed to arrest the bleeding. A careful search should be made for any vessels that might be spurting, and if one be found it should be twisted or tied. It would seem that pressure should control this hæmorrhage, but we were unable in this case to stop it in this way. Whether made with the fingers or an instrument, such an amount of retching and vomiting was provoked as to oblige us to desist. The suggestion of Cohen to make pressure with a long pair of forceps one blade applied to the tonsil and the other upon the outside to make counter-pressure, seems to me a good one. If the tips of the forceps were made broad enough to cover the whole tonsil and the handles closed with a catch like the ordinary Pean forcep, it could be firmly applied and left hanging from the patient's mouth without danger of being displaced by the retching.

There are a number of cases like this one recorded in the journals, in which the flow of blood stopped when the patient fainted and did not return afterwards. Dr. De Blois had a case at the Boston City Hospital of most alarming hæmorrhage after tonsillotomy, which continued in spite of all efforts to control it for three and a half hours, when the patient fainted, after which it gave no further trouble (*Boston Med. and Surg. Jour.*, March, 1887, page 309). Schede, of Hamburg (*vide* König's *Surg.*), reports two cases which he observed, where, after various attempts to check the bleeding, it stopped permanently upon the occurrence of fainting. This, in my opinion, is the way the hæmorrhage was checked in the case of Mr. D. He had become very restless and insisted upon sitting up, and it was while in this position, on the side of the bed, supported by his father, that Dr. McNaughton made use of the hot water; he became very faint and would have fallen to the floor had he not been held up, and when laid back upon the bed the bleeding had ceased and did not return.

The common carotid artery was tied in this case, because it is the step advised by authorities under such circumstances. No one of the medical gentlemen who saw this case had had any experience with similar cases. In Schmidt's *Jahrbücher*, vol. 186, is related a case of severe hæmorrhage after cutting of the left tonsil. Various hæmostatics were tried unsuccessfully and in three hours the common carotid was tied (*vide Boston Med. and Surg. Jour.*, March, 1887, page 303). Mr. McCarthy tied the common carotid artery at the London Hospital for hæmorrhage following excision of the tonsil and the patient recovered (Mackenzie). The common carotid artery has been successfully tied by Pepper for hæmorrhage from sloughing tonsils in scarlatina (Druitt's *Surgery*).

Most of the writers on diseases of the throat mention the ligation of this vessel to check hæmorrhage from the tonsil. The common carotid artery is tied in preference to the external carotid, "Because the uncertainty of origin of the vessels which supply the tonsil is against tying the external carotid" (Druitt's *Surgery*, edit. 1887, page 551).

"The operation of tying the external carotid artery is rarely performed, ligation of the common carotid being preferred on account of the number of vessels given off from the external carotid" (Gray's *Anatomy*).

While holding myself justified by the above mentioned authorities for the course pursued, yet the result of tying the common carotid artery in this case convinces me that it was an error. It had no appreciable effect upon the flow of blood, and in view of the origin of the vessels which supply the tonsils and of their free anastomosis, not only with each other but also with their fellows of the opposite side, it could hardly have been expected to have.

In many of the reported successful cases of tying this artery it is stated that the source of the hæmorrhage was the internal carotid, and probably this is true of all of them. Believing it to be impossible to wound this vessel in excising the tonsil with a tonsillotome, I should, in any future case of excessive hæmorrhage following this operation, depend upon pressure, hæmostatics, and placing the patient in an upright position to encourage fainting; and if the patient were not a bleeder should expect to arrest the hæmorrhage by these means.—Dr. S. E. Fuller, in *Am. Jour. Med. Science.*

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CLINICAL EXAMINATION OF CHILDREN

Patience and care are required in the clinical examination of sick children. They are easily frightened, and this disorders circulation and respiration, hence we cannot commence the examination of a sick child abruptly, but there are many things which we can study without contact with the child while it is becoming accustomed to our presence. We can observe the color of the skin. This is waxy in atrophy, tuberculosis, and wasting diseases, yellow in icterus and post-natal discoloration. There are irregular patches of purplish hue in meningitis, dependent upon diminished power of the vaso-motor nerves; these are produced on the cheek, forehead, and neck by pressure of the pillow or the nurse's arm. There is a general congestion of the face in some cases of typhoid fever in its early stages. A circumscribed patch is seen on the cheek in pneumonia and in hectic fever dependent upon tuberculosis or collections of pus. In pneumonia the patch is livid, in hectic pink. The skin is leaden in color or blue in chills, livid in croup, capillary bronchitis, œdema of the lungs, and all diseases of imperfect aeration of the blood. A similar color is seen in cyanosis from whatever cause. There is paleness in nausea and shock. The "tache cerebrale," which is pathognomonic of meningitis, may be brought out by a simple scratching of the skin by the finger nail or a pencil. This is dependent upon the same cause as the irregular mottling of the cheek above described. The redness to which this name is applied persists for a considerable time after the application of the irritation, and I have never been able to produce it except in meningeal inflammation. There is also the white stripe, which may be produced upon the skin by similar means in scarlatina. There are also peculiar eruptions, which we must learn to recognize, in scarlatina, measles, erysipelas, and variola. The rose-colored spots of typhoid fever, the petechiæ of typhus, scorbutus, and epidemic cerebro-spinal meningitis, are of value in a correct diagnosis.

In chronic diarrhœa the skin becomes of an earthy hue.

The eyes when asleep, in health, are directed upward beneath the upper lid, and the pupils are evenly contracted. The pupils may be dilated, irregular, or sluggish in their action from cerebral disease, or from disease located in the structure of the eye itself. They are often dilated to a great extent in the early stage of typhoid fever, and when this occurs it shows that the nervous system is profoundly implicated. Dilatation occurs also in the later stages of diarrhœa, when there is great exhaustion. The eyelids are also partially open during sleep, in the later stages of exhausting diseases, as the result of loss of muscular tonicity in the orbicularis muscles. In the same cases there is an accumulation of sebaceous matter over the cornea, and a great loss of sensibility, for flies may crawl over the eye without any inconvenience. These symptoms are indicative of great danger.

There is photophobia in meningeal or cerebral disease, also in phlyctonular conjunctivitis. Tears make their appearance about the fourth month, they disappear during severe disease, and their reappearance is an indication of improvement. Respiration in diseases of the lungs becomes more frequent. Respiration is interrupted in cerebral disease, and is a symptom of great value. In croup, inspiration is noisy; in asthma and emphysema, expiration is noisy. It is sighing and slow in nausea.

Cough is hoarse and ringing in the commencement of croup, becoming extinguished as the disease advances; spasmodic and subintrant in pertussis, constant and synchronous with each expiration in some cases of irritation of the laryngeal nerves. Cough sometimes exists as a symptom of worms in the intestines, and of jaundice; in these cases it is of reflex origin.

The cry of children in typhoid fever is of constantly changing fancies, and may be changed by external impressions, while in meningitis the cry is a constant repetition of the same word, at intervals more or less regular, with an unvarying cadence.

In some cases of cerebral irritation and typhoid fever, I have observed that the hands are kept constantly in contact with the genitals, and I have learned to regard it as a grave symptom, and that to a great extent it is involuntary.

The persistent flexion of one extremity points to lesion in the brain. Flexion of the thumbs or toes, contractions of the eyebrows, grinding of the teeth, and startings, are often the prodromes of general convulsions. Contraction of the lower extremities, with crying, writhing, and twisting of the body, are symptoms of the colic, vesical irritation, rectal tenesmus, pricking of pins, etc., and a constant pulling at the penis in young boys sometimes is seen in calculous disorders, and in congenital phimosis.

There is retraction of the head in meningeal disease, irregular muscular contraction without loss of consciousness in chorea, boring of the head into the pillow in cerebral irritation and rachitis.

Apathy and quietude in a child are suggestive of rachitis when there are no other indications of disease, and when this is joined to sweating about the head and general soreness the diagnosis is positive.

An intermittent pulse points with great certainty to disease of the brain, and an extremely frequent and feeble pulse is the forerunner of dissolution.

Vomiting may be incidental to the conformation of the stomach, or a symptom of disease. It

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is one of the first symptoms of scarlatina, variola, or intussusception; it accompanies abdominal inflammations, whooping cough, and sometimes pneumonia. It is one of the most rebellious symptoms of meningeal inflammation; in this disease it is forcible, and has been compared to the action of a force pump. The abdomen is tumid and distended in diarrhœa, but retracted and boat-shaped in meningitis. It fluctuates in dropsy and purulent collections in the peritoneal cavity, and is nodular from enlargement of mesenteric glands. In cases of intussusception the coils of the intestines roll beneath the surface like a mass of writhing snakes. The presence of undigested masses of casein or other albuminous matter in the stool tells that the disorder is in the stomach digestion. Excessive watery discharges in summer point to sympathetic paralysis. There are many things to be learned by inspection, and in obscure troubles it should never be neglected. Needles have been found driven into the brain through the fontanelles, perforating the chest and the abdomen, and plunged into the liver.

One of the earliest evidences of diseased action is found in variations of temperature. In scleremia there is a reduced temperature from the beginning.

The production of heat in excess of the natural standard is the result of several factors. There may be increased metamorphosis of tissues; impressions upon the vaso-motor nerves, and the actions of poisons upon the blood, as in zymotic diseases, where we infer an action similar to a ferment—all these may be capable of modifying the heat producing processes; but the subject as yet is to be more fully investigated before we can be fully enlightened. This much we know, there seems to be fully a established law that according to the height of the temperature above 98.4° the gravity of the case and its danger is increased. In intermittent fever there is a great rise of temperature during the febrile paroxysm, often to 104° or 106°, but it speedily begings to decline. In typhoid fever the temperature rises to 102° early in its course, and then by about half a degree or a degree to 104°, which point it does not often pass in children, unless there are complications in the lungs or peritoneal cavity. In diseases of the respiratory organs, when the parenchyma of the lungs is affected, the temperature is notably higher than when the mucous membrance alone is affected. In tubercular meningitis there are great ranges as well as irregularities in the course of the temperature; the maximum recorded is 108.5°, the minimum 95°. When the substance of the brain is affected, the rise scarcely ever exceeds 101°. A pulse rate increased to 130 or more per minute and a temperature of 102° is prognostic of meningitis, while a pulse rate of 110 to 120, with a persistent temperature of 104°, points to typhoid fever as the disease.—*Mass. Med. Jour.*

COCAINE IN OBSTETRICS.

1. Vomiting in Pregnancy.—Weiss administers hydrochlorate in doses of one-sixteenth of a grain, by mouth, every half-hour. Fraipont prefers to administer it by subcutaneous injection of twenty minims of a four per cent. solution into the epigastrium. Englemann relates a most obstinate case, where morphine, cauterization of the os uteri, and injection into the rectum of CO_2 had all been tried without avail. He gave ten minims of a ten per cent. solution thrice daily by mouth, with recovery in two days. Bois relates the case of a young multipara who was brought to a moribund condition by pregnancy vomiting; she had arrived at the fourth month. He made a pomade of cocaine hydrochlorate and vaseline (one in fifty) and placed a piece the size of a filbert against the os uteri: a fresh application was made night and morning. Amelioration of her symptoms soon began, and at the end of three weeks recovery was complete. The writer had two cases. In a nervous primipara at her seventh month, vomiting occurred after every meal, and she was induced to lie upon the couch all day, but unfortunately with no good effect. After trying the usual remedies, he prescribed as follows: Cocain. hydrochlor., one-tenth grain; tinct. aurantii. ♏x; mist. chloroformi, ʒ ss; aquam ad ʒ i; every three hours. There was a peculiar numb sensation about the tongue and fauces after each dose, but the effect upon the stomach was remarkable. The vomiting gradually ceased, and in three days she was able to take soup, and in a week became quite well, and went to the termination of her pregnancy without further trouble. In case II., vomiting was general all day, the patient being at the end of the fourth month. The drug was administered as before, and was taken continuously for a fortnight. The vomiting gradually ceased, and never returned. Of course here it might have stopped in consequence of the natural progress of pregnancy.

2. Early Stages of Labor.—Mr. Phillips had four cases, three being successes, and one failure. A. B, a primipara, aged 18 years, had been in labor six hours when he saw her. The os uteri just admitted the tip of the examining finger, and no thinning of the lips had as yet occurred. The pains were most severe; she was throwing herself about and crying continually. One of Head Moore's cones was inserted immediately after a pain; it was almost entirely dissolved in nine minutes. The effect was at once apparent, the pains coming more regularly even than before: but between them the patient gradually dozed off and cried out no more. The effect of the drug was kept up for four hours, at the end of which time the os uteri was thined out and dilated fully. Labor terminated naturally. The next two cases

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were counterparts of the foregoing; but the last, for some unexplained reason, was entirely unrelieved. In order to understand the effect of the drug, we must try to analyze the early pains of labor. Two agents unite to produce them. 1. The pain of uterine contraction,—similar, indeed, to any other organ consisting of smooth muscular fibre, endeavoring to expel its contents. 2. The pain resulting from the stretching of the nerves of the cervix, and the lacerations of the cervical tissue which doubtless occur. Over the first, cocaine has no control, and its beneficent effect in this stage is due to its mitigation of the second kind. Doleris painted the uterine neck through a speculum with a four per cent. solution of glycerin and hydrochlorate of cocaine. Of eight cases, in six the results were decidedly affirmative. Jeannel relates six cases, and in five of them (three of which were successful) he applied cotton-wool tampons soaked in a five per cent. solution to the cervix and posterior vaginal cul-de sac. In the first case he cautions us against the use of bichloride of mercury with cocaine, as he found the former decomposes alkaloids with great rapidity. In three successful cases by Fischel, a two per cent. solution was applied to the cervix on a tampon, and repeated every twenty minutes. In two others, however, a similar application of a four per cent. and then a two and a half per cent. solution produced a negative result. The method adopted by Hartzhorne is to introduce, through a female glass syringe, as high up as possible behind the cervix, the following mixture: cocaine, 6 parts; glycerin, 20; and vaseline, 24.

Mr. Phillips differs from those who use the speculum. The objections appear to be (1) the exposure necessary; (2) the idea which must imbue the patient that some operation is about to be performed in spite of assurances to the contrary; (3) the removal of the vaginal discharge necessary before the application of the drug, which would be detrimental to the course of the labor; (4) a very large number of hyperæsthetic primipara can scarcely bear an ordinary vaginal examination, much less the introduction of a speculum, and these are the very cases in which cocaine is of so much value.

3. Expulsive Stage of Labor.—Here the factors causing pain are much more numerous. The pain from compression of the mucous membrane against the pelvic bones is the only form that any relief is obtained from, as all mucous membranes are anæsthetized by a two per cent. solution of cocaine. The part this factor, however, takes in the totality of an expulsive pain must be so slight that it may be neglected, and almost before making experiment we can say, on physiological grounds, that any certain or marked relief is out of the question. In six cases in which he has tried the drug either in the form of saturated tampon (five per cent.) or painting the vulva with it, he has found practically no amelioration of the pains. It is little probable that cocaine can be used as a local anæsthetic in labor, because anæsthesia and analgesia developed under this drug are essentially superficial, while the pains of labor are the result of distention and stretching of the tissues through their whole thickness.

4. Obstetric Operations.—In this class it has suggested itself that cocaine might be useful to anæsthetize the vulva in the operation for induction of premature labor by catheter, or the application of forceps on the perineum, or removal of adherent after-birth. Hale reports two cases where it was entirely successful in post-partum "vesical neuralgia." He injected twenty minims of a two per cent. solution into the urethra, with an immediate disappearance of the pain. A case is related in which cocaine was applied with success to the vulva of a recently-delivered woman in order to pass the catheter, and there seems no reason why, in cases like this, the drug should not be of great service.

5. Sore Nipples.—Hergott first made a local application of a four per cent. solution in nine cases, and concludes that suckling can be allowed without pain. The fissures rapidly heal, and cauterization of them by nitrate of silver becomes a painless proceeding. Mecuen found complete relief from pain in three cases. Mr. Phillips has tried a six per cent. solution in four cases. The anæsthesia produced was more or less deep, but only lasted two minutes, and the sores certainly did not tend to heal more quickly. In three cases weaning was deemed necessary, while in the fourth healing took place, and successful lactation followed. Children do not object to taking the nipple after the application of the drug, nor do they appear to suffer in general health.

We may therefore draw the following practical conclusions: 1. That cocaine, in whatever way administered, for uncontrollable pregnancy vomiting is a valuable adjunct; and, in some cases, a superior drug to those at present in vogue. 2. That during the painful earlier stages of labor, especially in primipara, it materially assuages the pains, but neither quickens them nor retards their onset, and hence has no effect on the actual dilatation. 3. That it is useless in mitigating the pains of expulsion and those caused by pressure on the perineum. 4. That in the case of sore nipples it relieves the pain attendant on suckling, though the duration of its effects is not sufficiently long to be of material service.—Dr. Phillips, in *Lancet.*

Rohé uses a 1 in 10 solution of liquor sodæ chlorinatæ in gonorrhœa. He finds the discharge promptly ceases in the majority of cases.

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THE THERAPEUTICAL VALUE OF BISMUTH SALICYLATE.

Some months since I called attention to the many advantages possessed by the bismuth salicylate in the treatment of summer diarrhœa in children, since then I have been able to employ it successfully in other affections of the alimentary canal.

In an experience extending over two years, with its use in the treatment of inflammatory affections of the gastro-intestinal tract, seldom has it failed to accomplish the desired result and permanently cure the disease. In severe cases of diarrhœa occurring in phthisical patients I have effected diminution in the number of stools by half-drachm doses of the drug at intervals of two hours, reducing the amount of the dose on the amelioration of the symptoms. In cholera morbus, after the cause has been removed, this agent will soon reduce the existing inflammation and induce a cessation of the morbid action.

In dysentery, acute in character and of the sporadic variety, it has proved efficacious when full medicinal doses have been administered, allaying the disorder with great rapidity.

The diarrhœa accompanying enteric fever, especially in children, I have been able to control by its use, when other well-known remedies for this disorder had failed. If impossible to administer by the mouth, an enema may be employed, but in that case, the amount should be double that given by the mouth; and it should always have a small amount of opium administered with it.

In dyspepsia, with acid eructations and pyrosis, with a feeling of heaviness at the stomach after the ingestion of food, bismuth salicylate, in combination with simple bitters, soon tones up the organ and relieves the disorders. Recently, Dr. James Ware, of Lake Charles, La., communicated to me the following cases in which he had found the preparation useful:

1st. Female, æt. forty-five; dysentery. At the end of five days of treatment with opium and so on, I gave:

℞.—Bismuth salicyl., ... gr. c.
Bismuthi subnit., ... gr. c. M.
Ft. pulv. No. vj. div.

Gave one powder every three hours. The woman was entirely relieved in twelve hours.

2nd. Female, æt. twenty-three; dysentery. Gave salicylate as above, also by enema, thus:

℞—Bismuthi salicyl., ... gr. cc.
Glycerinæ, ... f ʒ j.
Aquæ, ... f ʒ vj. M.

Sig.—f ʒ, in three ounces of tepid water, after each stool.

Woman was well in forty-eight hours.

3rd. Child, æt. three; never fully recovered from an attack of cholera infantum last summer. Relieved by salicylate in eight-grain doses.

4th. Male, æt. twenty-five: periodical fermentation of contents of bowels every ten or twelve days for a year. Relieved now at the beginning of every attack, by fifteen grains each of the bismuth salicylate and subnitrate.

5th. Female, æt. twenty; pruritus vulvæ. Suffered terribly for several days. Used corrosive sublimate, carbolic acid, and other remedies with no benefit; then employed:

℞—Bismuthi salicyl., ... gr. c.
Aquæ, ... f ʒ iv.

As a vaginal injection; relief instantly.

6th. Female, æt. fifty-six. Fermentation of contents of stomach and bowels every ten, twenty or thirty days for twenty years, accompained with violent pain and frequent discharges of acid mucus. Relief generally came in from thirty to seventy-two hours. In the midst of an attack I gave ten grains each of salicylate and subnitrate, with immediate relief. She has taken this amount night and morning for thirty days, with no return of the disease.

The preparation of this drug I have used is a pure white, very flocculent and light material. In beginning the treatment of any inflammatory affection of the alimentary canal, full and decided doses should be administered, and subsequently, when decrease in the severity of the symptoms takes place, the amount may be lessened. In severe cases occurring in children I never commence treatment with a dose less than five to eight grains.

The formula I prefer in cholera infantum and many other diarrhœal disorders in children, is the following:

℞—Bismuthi salicyl., ... ʒ ij.
Tr. capsici., ... gtt. xij.
Spts. ammon. aromat., . . f ʒ iss.
Pulv. acaciæ, ... ʒ ij.
Aq. cinnamomi, q. s. ad., . f ʒ ij. M.

Sig.—Teaspoonful every two hours, for a child from three months to one year of age.

In the adult I prefer to use the preparation in powder, or combined with some other astringents, as tannic acid, acetate of lead, etc. With the bismuth salicylate it is possible in many instances to entirely dispense with an opiate, and this I always endeavor to do if possible.

The beneficial action of this drug is undoubtedly due to the antiseptic power of the salicylic acid as much as the astringent properties of the bismuth. In many cases of vomiting it will control it if given in five-grain doses, also in pregnant women the vomiting may in many instances soon yield to the action of this preparation, and its return to any great extent will be prevented by its continuance in small and frequently repeated doses.—Dr. Hale, in *The Polyclinic.*

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THE GALVANO-CAUTERY IN THE TREATMENT OF ENLARGED TONSILS.

In the *Medical News* of March 10th, I notice the report of a paper read by Dr. Frank Hamilton Potter before the Medical Society of New York, on "The Galvano-cautery in the treatment of enlarged tonsils." It embodies, I think, the experience of the majority of those who have *had* experience in the matter. There has lately been a great deal of literature on the subject in both home and foreign journals, but there are a few points deserving of mention which I have not seen dwelt upon sufficiently.

1st. As to pain. The fact is that while many tonsils may seem utterly devoid of sensation when hypertrophied, others, on the contrary, are quite sensitive to the application of the hot wire. Often, in the same patient, one tonsil may be cauterized freely with total immunity from pain, while the other is so sensitive as to require the application of cocaine, which, I think, should be avoided in the throat, if possible. I think most operators will agree with me that it is not always a "painless operation" as Dr. Potter sums up.

2nd. As to the number of ignipunctures made at one sitting, I had the advantage of Dr. Knight's personal direction before he read his paper at the last meeting of the American Laryngological Association. At that time and since then, I think, he had limited the number of punctures to at most five or six at one sitting (I only write from memory, and may be mistaken,)

Since then it has been my custom to regulate the number of punctures almost entirely by the size of the tonsil and the sensitiveness of the patient to the application of the hot wire. Whenever I have a comparatively insensible organ I make enough punctures to cover the whole tonsillar surface with a slough, even sometimes burning away small projections of tissue altogether. I have used the cautery, with three or four exceptions, for the last nine months in every case of enlarged tonsil I have seen, that number being the proportion usually seen in a throat clinic, for that time averaging 1200 to 1500 new patients yearly, and many times in private practice. With possibly one or two exceptions I have never seen any serious reaction. Occasionally the patient's throat would be very sore for part of the next day, but this has seldom lasted more than two days at the most. One case, I remember, complained of a sore throat for as long as five days. Another had an intervening quinsy, which, however, did not begin until two days after the operation, and may have been simply a coincident. Usually, most reaction is observed in those with sensitive tonsils even if only slightly burned—and mostly after the first sitting—the succeeding operations being followed by little pain.

Of course, this radical procedure can only be adopted at first when the tonsils are still large, because after most of the tonsillar tissue has been destroyed a sensitive area is reached near the normal mucous membrane, where pain always follows any deep or extensive cauterization. When this stage is reached, longer intervals should be observed, as there is always more or less infiltration of the surrounding mucous membrane which will disappear of itself if left untouched.

3rd. As to its use in children. Lately I have ceased operating in patients under the age of twelve with the cautery. It is nearly always unsatisfactory. "Kindness and patience" will often lead the little ones to submit for one or two sittings, by which time you have changed the size and shape of the tonsil so that a tonsillotome can only be used with difficulty, and ignipuncture has become of exceeding difficulty owing to the want of control that even the most tractable child has over its pharynx. You now have a ragged mass of tissue between the faucial pillars full of holes and lodging places for food and secretions.

A tonsillotome, a strong assistant, and a sensible guardian of the child are all a moderately deft operator needs to settle the whole affair of enlarged tonsils in two minutes, without "general anæsthesia" and the danger of blood in the trachea of an insensible patient. I think there are no cases on record of serious—at least fatal—hæmorrhage under the age of twelve. I believe that those who see a large number of cases of enlarged tonsils each year will soon discard tonsillotomy in adults where ignipuncture is possible. In many cases the latter is almost an absolute necessity owing to the diffused condition of the tonsillar tissue, and also, rarely, to the size of the mass to be removed.

4th. As to the number of sittings. I have never met with a case in which the hypertrophied condition was not removed by at most fifteen sittings if properly carried out. Usually half the number is sufficient.

To conclude, recurrence of the hypertrophy is occasionally seen where the tonsil has not been completely removed, or at least restored to its normal proportions. When the two operations of ignipuncture and tonsillotomy are explained to the patient with the advantages and disadvantages of each, I have yet to see the patient who preferred the latter, though one after submitting to both said he preferred tonsillotomy.—Jonathan Wright, M.D., in *Med. News.*

THE *Med. Rec.* the homœopaths of New York are prescribing antipyrine in 15 grain doses.

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MEDICAL NOTES.

Manning (*Wiener Med. Presse*) treats *bubo* by injection, every other day, with a small quantity of a one per cent. solution of corrosive sublimate.

An excellent preparation for *chilblains, cold sores, etc.*, is emulsion of oil of sweet almonds, rose water, glycerine and powdered tragacanth, applied on retiring at night.

A CURE FOR WRINKLES—It is said that when lanolin is well rubbed in, it passes directly into the skin and acts as a nutrient to the subjacent tissues, smoothing out the folds produced by the alteration of these structures incident to age.

Huchard, in the *Revue de Clinique*, recommends the following formula for administering *creasote in phthisis* :—

℞.—Creasot,
Iodoform.,
Benzoini pulv.,
Balsam. peru., . . . āā gr. ¾. M.
Ft. pil.
Sig.—One or two to be taken at each meal.

For *cancer of the uterus*, the *Medical Press and Circular* suggests the use of a suppository, as follows :—

℞.—Iodoform, ... gr. x.
Camphori., ... gr. iv.
Extract. belladonnæ, . . gr. j.
Ol. theobromæ, q. s. . . . . M.
Apply every night in the vagina a suppository of this strength.

Bardet, in the *Journal de Méd.*, Dec. 18th, 1886, recommends as a *laxative and gastric tonic* combined, the following :—

℞.—Extract. carscaræ sagradæ
fluid., , ... f ʒ v.
Tinct. nucis vomicæ, . . ℥xxx.
Syrup., ... f ʒ iij, ℥xlv.
Aquæ destillat., . . . f ʒ xxviij, ℥xlv
Sig.—Dose, a teaspoonful. M.

For *Dyspnœa*, Dr. Ellis (*Therapeutic Gazette*, Jan. 16th, 1888) recommends quebracho in the following formula :—

℞.—Syrup. pruni virgin.,
Syrup. tolu,
Extract. quebracho fluid., āā f ℥j
Acid. hydrocyanic. dilut., gtt. xxiv
Morphiæ sulph., . . . gr. iss. M.
SIG.—A desertspoonful, to be repeated *pro re natâ*.

Dr. Thomas Addis Emmet urges that a *displacement of the uterus* should never be corrected simply on its own account, nor until the cause has been clearly ascertained ; nor should a pessary be employed without a clear understanding as to what is to be accomplished by its use, beyond merely changing the degree of version.

Gastritis or *Gastric Catarrh* may frequently be relieved, according to the *Pharmaceutical Record*, by giving the patient the following three times a day, before meals :—

℞.—Bismuth. subnitrat., . . gr. xxx.
Liquor. potassi arsenitis, . ℥v.
Acaciæ pulv., ... gr. xxx.
Extract, hydrastis canadensis fluid, ... ℥xv. M.

Or oxide of silver with extract of belladonna, in pills ; or oxide of zinc, or nux vomica, with other bitters. The milk cure is effective. For acute gastritis, etc., hydrocyanic acid and morphia.—*Coll. and Clin. Rec.*

Credé teaches that all interference with the genitals during labor and the days succeeding it are unnecessary unless there be some special indication for such interference. He does not make a vaginal examination at all unless some abnormality presents itself, relying entirely upon external pulpation and manipulation of his diagnosis.

SULPHUROUS ACID IN THE TREATMENT OF PULMONARY CONSUMPTION.

The French seem determined to get sulphur in some form into the body to cure pulmonary consumption. Dr. Darien (*Bulletin Général de Thérapeutique*, t. cxi., 14) gives the history of the treatment with sulphurous acid. It had been used as far back as the second century. Dr. Solland came upon this treatment accidentally in the following way : It seemed that a sergeant having phthisis had been through different kinds of treatment, and was finally sent to the East without improvement. Nothing could stay the march of the malady, and wearied of continued hospital treatment, he demanded his release and left. Wishing some light employment, he was given the work of opening the doors of the rooms of the barracks where sulphur was burned for disinfecting purposes. To do this he was obliged to pass nine hours of his time each day in a sulphurous atmosphere. In sixty-five days he had completely recovered. A case of chronic bronchitis also recovered after inhaling for fifteen days. M. Auriol was led to its use in phthisis from these facts. He found in a factory at Bellegarde, in a room where sulphur was used, a number of consumptive women who refused to work elsewhere, because they always felt better in this room.

He had a large and closed room fitted up ; in one corner he had a small brazier in which was sulphur slightly moistened with alcohol, and in the

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other corner the patient was placed, standing erect and taking deep respirations. Soon the effects of the sulphur were felt, and then the patient continued inhaling until chemically prepared paper in the room showed the lead reaction. At times, when the fumes of the sulphur were too strong, the windows were opened for a short time. To make the inhalations less irritating, a little benzoin or powdered opium may be added to the sulphur. In a little while the patient becomes accustomed to the fumes. These inhalations were practised in the morning and evening, on an empty stomach, and were followed up by exercise in the open air. Medicated inhalations were also used. Sixty-six tuberculous patients were treated in this way, in all of which an examination of the sputa showed the presence of the tubercle bacilli. Thirty of these, who were very ill, had their disease arrested so that the sweats and fever disappeared, the appetite and weight increased, and the bacilli disappeared. The lungs cleared up, and the caseous deposits became fibrous and innocuous. This state of things continued for a year, and no bad symptoms returning, they were considered cured. Many of the others were so far advanced in the disease, and took the treatment so irregularly, that they did not show the same improvement.

M. Dujardin-Beaumetz feeling convinced that there is something in this method of treatment, has fitted up a room in the manner above described, and makes the patients inhale the sulphurous fumes, letting in air from time to time to make it more bearable. In using the fumigation, a lamp or sulphurous candle is employed. The lamp increases the amount of CO_2 in the room, but M. Dujardin-Beaumetz thinks this causes the gas to be taken up more quickly. In the small number of patients treated, only seven, he has had excellent results, and he expects to make another report when experience justifies it. His conclusions are that it is not so good as the iodide of potassium in syphilis, but he thinks it is a cure for many cases. It is not only effective in stopping the trouble, but it acts well in ameliorating the bad symptoms when a cure is not possible. The French are so intensely enthusiastic over everything that seems to promise good results, that they are apt to rush into print before their theories are fully justified by facts. This treatment can, of course, only be carried on in hospitals, and it is to be hoped that equally good reports may be heard later, and that it may not share the fate of the rectal injection treatment.—*Med. Rec.*

SUBSTITUTION AND ADULTERATION.

In regard to substitution and adulteration, it must be admitted that in numerous cases the charge is a true one, and the evil is of growing dimensions. With the reduction in the margin of profits caused by the fierce business competition of the present day, comes the temptation to adulterate or substitute inferior quality. No condemnation can be too severe for the man who thus trifles with human life; and if he cannot carry on his business honestly he had better abandon it and seek some other occupation.

Again, the outcry is made that the physician is to apt to prescribe various remedies more or less proprietary in character, put up by large manufacturing concerns and introduced by skilled advertising, and thus require the druggist to carry an endless variety of such articles in stock, many of which are seldom or only once called for, and thus remain a dead loss to the proprietor. But is the physician much to blame? True, he is sometimes imposed upon by the bland and sauve canvasser, and the glowing printed endorsement of his professional brethren in favor of some new remedy—*vide* stenocarpine. But when he sees remedies in convenient and compact shape, of appearance much more elegant than those he can procure from the corner druggist, and of at least equal efficacy, is it to be wondered that he should prefer X., Y. or Z.'s manufactures to the oftentime imperfectly prepared remedies of the pharmacopœia?

And why should the druggist complain? *As long as he keeps open store he must submit to the unalterable law of traffic, namely, the needs of the customer are to be supplied.* He will buy Lubin's extracts for Miss Jones, and Alfred Wright's for Miss Brown. Why should he not keep Bromidia for Dr. A. and Papine for Dr. B? Although he makes a great out-cry about being obliged to carry so much stock, he in reality does it to a very limited extent, and, outside of a few standard preparations, shifts the burden on his wholesale druggist and lets him carry the supply for him. Nearly all the large manufacturers have established depots for their goods in the principal cities, and the druggist very rarely lays in a stock outside of his actual present need, unless he is sure of a steady sale. And let him remember also that if he don't keep what is called for, someone else will, and his customers will be sure to go where their needs receive best attention.

And here let a word be said for that much abused class, the modern manufacturers of pharmaceutical specialties. The medical and pharmaceutical profession owe to them a great debt. It is their industry and their capital which have developed the perfection of the coated-pill, and the compressed tablet, the pancreatic ferment and the scale pepsin, the smooth and palatable cod-liver oil emulsion, and the perfected extracts of malt. To their energy do we owe the modern methods of treating disease with pre-digested and concen-

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trated foods—a plan which has been the means of prolonging many valuable lives. They have spread the fame of American pharmacy over the entire globe, and established its supremacy against all competitors; therefore let them receive at least just recognition and honor for their labors.—*Phila. Med. Times.*

NOTE ON NITRO-GLYCERINE IN EPILEPSY.—I have used it in nineteen cases. It may be administered in solution, one per cent., or in pilules of 1-100 of a grain; and I find the latter, as prepared by reliable chemists, very satisfactory. I begin with two, three times a day. As individuals appear to differ in their susceptibility to this drug, each case must be tested before the proper dosage can be determined. I doubt if any good follows unless the physiological effect is obtained. Sensations of flushing of the face, fullness of the head, and a pleasant glow over the body, indicate that the proper dose has been reached. In some patients these symptoms are produced by one or two pilules, but in others not until six or eight have been taken. Headache and dizziness were the only unpleasant symptoms complained of, and on this account, in two instances, the medicine had to be stopped. I have notes of nineteen cases in which the nitro glycerine was tried for periods ranging from six weeks to six months. In thirteen of these cases there were severe epileptic seizures, six were instances of *petit mal* with occasional convulsions. Briefly stated, in nine cases there was improvement, as shown in the reduction of the frequency of the attacks. Of these, six were cases of major epilepsy; and three, instances of *petit mal*. The benefit was usually manifested within a week or ten days. Thus case 16, a man aged 27, had had fits for ten years, and when seen, April 5th, had as many as two or three a day. He had taken potassium bromide largely, and at one time with great benefit. Antifebrin was given in gr. viii, two or three times a day, but seemed to be without any influence. On June 1st, nitro-glycerine was given, ♏v of the one per cent. solution, three times a day. Within a week the attacks were greatly lessened, and in the second week after beginning he had only two attacks. He continued to take it all through the summer, getting up to ♏ viii doses, t. i. d. He does not think that anything he has ever taken reduced the fits so much. On November 11th, he stated that he had stopped it for a month; the attacks have recurred less frequently, and he had been able to be at work.

In some of the cases in which the betterment was most striking at first, the remedy seemed to lose its influence, and after a month or two had to be abandoned. I cannot say that in any one of the nine cases the improvement has been more than temporary. In two of the cases of *petit mal* the attacks were greatly reduced, and one patient remained free for two months, but I learn by letter that the attacks have returned. Altogether, my experience has not been very encouraging. We may say that, in a limited number of cases, when the bromides have failed or are beginning to lose efficacy, nitro-glycerine may be used with advantage.

ELECTRICAL TREATMENT OF UTERINE FIBROIDS AFTER APOSTOLI.—An Edinburgh correspondent writes that Keith accepts the teachings of Apostoli. "Keith and son in less than five months have applied electricity in strong, and accurately measured doses more than 1,200 times upon more than 100 patients, the majority being cases of uterine fibroids. The labor of these operations was very great, but it opens out a study which increases daily in interest. Several cases came to them for hysterectomy in uterine fibroids. After treatment by Apostoli's method these women have gone home without operation, with menstruation almost normal and improving after their return. In every case the tumor was reduced in size, the pain gone and they enjoyed the freedom to walk about and life itself, in a way to which they had long been strangers. In one case only has there been a return of hæmorrhage. The tumor had gone down two-thirds, and unwilling to detain her longer in town she was permitted to go home too soon. Should these improvements be permanent, and he has every assurance from experience of Apostoli that they will be, the field of hysterectomy is reduced to the narrowest possible limits. He would consider himself guilty of a criminal act, were he to advise his patient to run the risk of her life before giving this treatment a fair trial. Dr. Playfair has been experimenting industriously on this subject since his return from the summer holidays. He is not quite decided concerning it in all respects, but does not hesitate to declare it a therapeutic measure of much power and considerable promise. I doubt, however, if it will fulfil Apostoli's enthusiastic estimates. He has found it very valuable in membranous dysmenorrhœa and chronic endometritis, with glairy glutinous discharges. One or two of his cases have been quite remarkable and have yielded to two or three applications. Playfair has had one remarkable case of rapid absorption of a large fibro-myoma under negative electro puncture. The case had been under his observation for years, by the application of currents of 100, 150 and 200 milliametres, it has been reduced from the size of a large human head to that of a small orange. There was, however, considerable pyemic and constitutional disturbance which at one time caused considerable anxiety. If not carried out with care and discrimination, this electrical treatment may cause serious accidents."—*Med. Times.*

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UNHEALTHY ROYAL FAMILIES.—"It is recalled now that Bismarck, who was already the chief man in Prussia, in 1858, strenuously opposed the marriage of the Crown Prince with the English Princess, saying that he was against any 'blood alliance with those scrofulous Guelphs.' The existing situation is a strange retributive comment on that utterance. Scrofula, or that worse allied disease with which so many royal strains of blood are contaminated, lays a heavy hand on the Hohenzollerns at San Remo and Berlin alike; but the taint has not come from England. A fact which has been privately known here for some months may now properly be mentioned. The present aged Dowager Empress of Germany, mother of the Emperor, has been a victim to hereditary scrofula, or a cognate malady, for many years. She got it from her mother, Marie Paulowna, who was a daughter of the crazy Czar Paul, one of the most thoroughly diseased men of his generation. All of Paul's daughters transmitted the taint to their descendants. One of them, Anne Paulowna, was mother of the present King of Holland, and the recent death of both his sons and the extinction of his male line are attributed to this. In the male Romanoff line the same malady caused the death of the Czarowitz, who was the elder brother of the present Czar, and now renders it very doubtful if the present youthful Czarowitz will ever reach manhood. In the Hohenzollern case, not only is the Emperor suffering from this hereditary taint, but his son William, who in a few weeks or months will be Emperor, is hereditarily deaf, and was born with a mere shapeless ball of flesh where the right hand ought to be. The Emperor's only sister is the Grand Duchess of Baden, and of her two sons one died last month, and the other is ill at Cannes and not expected to recover, both from scrofulous developments. The malady can, in truth, be traced all through the Almanack de Gotha among descendants of the Czar Paul. The disease only showed itself in the Empress Augusta when she had advanced in life, since when she has worn high dresses, and frequently was not visible to the public for months at a time." It may be recalled that one of Queen Victoria's sons had epileptic attacks and died of purpura hæmorrhagica.—*N. Y. Times.*

COLCHIUM IN THE URIC ACID DIATHESIS.—In an address on the *Therapeutics of the Uric Acid Diathesis*, Dr. I. Burney Yeo says that Dr. Bartholow's description of the effects and uses of colchicum is so complete that he has little to add to it.

"The prejudice against colchicum has induced Ebstein to make the extraordinary statement that it is preferable to relieve the pain of the gouty paroxysm by hypodermic injections of morphine. He says they act "quicker, more easily, and with less danger." I join issue with him utterly. The internal use of opiates in gout I consider, except under exceptional circumstances, indefensible. In a disease of defective elimination, you would be giving a drug which depresses in a remarkable manner the functions of all the excretory organs but the skin. A very shall dose of morphine will, especially in the gouty constitution produce clay-colored alvine evacuations, sometimes for days.

Colchicum then, I maintain, is one of the most valuable remedies, when judiciously given, for most of the morbid manifestations of this "uric acid diathesis," and so far from being a dangerous vascular depressant, I have shown, in my hospital practice during the session just passed, that in a case of chronic gout with subacute exacerbations, moderate doses of colchicum restored regularity and strength to an irregular and feeble pulse. I trust, then, that the absurd prejudice against this most valuable remedy which has been excited in the minds of the public will be removed, for I find many gouty persons who, much to their own disadvantage, positively refuse to take colchicum, because they have been told it is "such a dangerous drug."—*Br. Med. Jour.*

TOBACCO HEART.—Of the cases of heart disease recently treated in the writer's room, at the dispensary, nine were diagnosticated as functional disorders due to the excessive use of tobacco. All the nine cases occurred in young men between the ages of seventeen and twenty-seven years.

The tobacco was used in all the cases in the form of chewing, the amount ranging from a half a pound to one pound a week. The habit of chewing was begun early in life in all the cases; in one case at the age of five years; the oldest age noted at which chewing was begun was twelve years; the average was seven years.

The symptoms complained of were palpitation, pain and dyspnœa. Palpitation was present in all the nine cases, and was greatest upon making any exertion. Irregular action of the heart at the time of the examination was noted in only one case. Pain was complained of in seven cases, and always had its seat immediately over the heart or under the sternum. Dyspnœa was complained of in only three cases, and was not excessive. Hypertrophy of the heart as evidenced by increased area of cardiac dulness was noted in two instances. In both cases the dulness extended to the right edge of the sternum. In the two cases in which hypertrophy had occurred, care was taken to exclude any other cause than tobacco No murmurs were noted in any of the nine cases.

Treatment consisted in prescribing total abstinence from the use of tobacco, and in some cases, where this alone did not suffice, the moderate use of bromide of potassium. Notwithstanding the great length of time during which tobacco had been used, and the early age at which the use had

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been commenced, this simple common-sense treatment usually sufficed to give entire relief after three or four weeks. In only one case was digitalis used.

BENZOATE OF SODIUM IN ACUTE FOLLICULAR TONSILLITIS.—L. C. Boisliniere, Jr., in a communication to the *St. Louis Cour. of Med.*, says that in upwards of one hundred cases of acute follicular tonsillitis, the following formula has been used :

Sodii benzoat . . . . . ʒi-iv
Glycerini,
Elix. calisayæ . . . . . āā f ʒj

M. Sig.—One teaspoonful every one or two hours.

In the analysis of the last seventy-five cases, he finds that : 1. By the use of benzoate of sodium the disease is cured in from twelve to thirty-six hours, a great gain in time, as the average duration of the disease has been heretofore from two to five days. The average duration for the seventy, five cases was twenty hours. In private practice when the cases could be watched more carefully, the white cheesy points have been frequently seen to disappear in from eight to ten hours. 2. The benzoate of sodium undoubtedly controls the febrile elements in the disease. 3. It may be given with impunity, even to children ; he has never been able to discover any bad or even disagreeable effects from its action. 4. It is a valuable addition to the remedies used in throat affections, especially in an acute inflammatory condition of the tonsils, when applications only aggravate, and gargles increase the trouble.—*Med. and Surg. Rep.*

A STUDY ON THE ETIOLOGY OF PHTHISIS.—R. W. Philip, of Edinburgh, concludes from a series of experiments upon the sputum of phthisis that (1) in view of the work of Koch, it is impossible to avoid admitting that a causal relationship exists between the tubercle bacillus and the phthisical process. 2. The mere predication of this relationship is not sufficient in explanation of the clinical facts and the generally fatal termination of such cases. 3. The usualy received explanations of the *modus moriendi* in phthisis are insufficieut. 4. It appears probable that the lethal influence of the bacillus is due to the production thereby of certain poisonous products. 5. Clinical and experimental evidence appears to indicate that the morbid secretions from the respiratory surfaces afford a good medium for the growth of the tubercle bacillus, and, presumably, for the elaborating of such products. 6. Such a product is separable from the carefully selected and prepared sputum. 7. This product is possessed of well-marked physiological properties, being eminently toxic to frogs, mice, and other animals. 8. The toxic properties of the product are, speaking generally depressant. 9. More particulary they include a marked depressant influence on the heart. 10. This depressant influence seems to be exerted through the medium of the cardio-inhibitory mechanism. 11. The toxic action of the product is more or less completly opposed by atropine. 12. The amount of the product which may be seperated appears to bear a distinct relation to the abundance of the bacillar elements present. 13. Absorption of the poisonous product most probably occurs by way of the lymphatic circulation.—*Brit. Med. Jour.*

PROFESSIONAL VISITS.—The number of professional visits which a physician can make in a day has of late been the subject of some discussion. A New England doctor is credited with having made thirty-five calls in twenty-four hours, besides attending three confinements. The West produces something far ahead of this in the person of a Sacramento doctor who claims to have made one hundred visits a day, besides attending four confinements ! The *Medical Age* promises something from Detroit that will even surpass the hyperkinesis of Sacremento, and we await the anecdote with eagerness. It appears to us that the conscientious physician can hardly make more than twenty or thirty calls a day and do his patients justice. Naturally much depends upon the distance which one is obliged to travel. But allowing fifteen minutes for travelling and fifteen more for the briefest average of visits, it will be seen that a doctor must work fifteen hours a day to make even thirty visits. And fifteen hours' work in these days turns even conservative knights of labor into raving anarchists.

It has been related that certain physicians in this city have habitually made forty to sixty visits daily ; but inquiry has shown that the story is false, or the physicians have been homœopaths.

We trust there will be no ambition to break the record in number of daily visits. It is quality, not quantity, that is needed.—*Med. Rec.*

VACCINATION AGAINST TYPHOID FEVER.—Chantemesse and Vidal communicated to the Societé de Biologie, at the meeting held March 3rd, some interesting observations on vaccination against typhoid fever. They claim that in mice inoculated with cultures of typhoid bacilli a disease is produced, with lesions the same as in human typhoid fever. Mice inoculated with bouillon in which colonies have lived, but which no longer contain the bacilli, resist subsequent inoculation with the most intense typhoid virus. From the large number of observations, this would seem to be well established. On the other hand, mice inoculated with bouillon in which indifferent microbes had grown, such as the bacillus subtilis, did not resist, and were not in the slightest degree protected against the typhoid virus. The saturation of the organism with the soluble chemical

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substance produced by the typhoid bacillus granted immunity from the effects of the fresh virus. The observations are of value as illustrating the influence of organic substances produced by the growth of bacilli, and they indicate, too, the direction in which we may hope for practical results from bacteriological work.—*Med. News.*

BARNES: THE CAUSES, INTERNAL AND EXTERNAL, OF PUERPERAL FEVER.—The simplest forms of puerperal fever arise from deficient gland excretion, and are due to the accumulation of waste material in the blood. They are purely autogenetic; endoseptic.

In another set, the noxious matter is not strictly formed in the body, but is still manufactured by the patient (from decomposition of animal tissue in any part of the parturient canal). A most powerful predisposing cause is hæmorrhage, as it increases enormously the activity of absorption. With the hæmorrhage may be associated a relaxed state of the uterus. These forms, which include some of the cases described as septicæmia, sapremia, and putrid fever, may be called autoseptic.

In a third class, exoseptic, the empoisonment comes from foreign sources, brought by the physician, nurse, linen, or other external media, and includes the cadaveric poisons and the poisons of the so-called zymotics. The specific zymotic poison received and developed in the nursery ground of the puerperal blood is modified, and undergoes a form of metabolism.

The relation of puerperal fever to zymotic fevers in general is graphically demonstrated by means of two sets of tables: the first showing the mean curves of the general temperature and rainfall, the deaths from scarlatina, erysipelas, fevers in general, and puerperal fever during the thirty years from 1845 to 1874, and the second the same for the ten years following (1875-'84). The comparison of these curves is particularly interesting and instructive, as the separate histories of ten years can be studied in parallel with the history of the preceding thirty years. The similarity of the curves is most remarkable, and affords strong evidence of the uniform prevalence of like causes. The tables also illustrate a fact that has been widely recognized, that zymotics are most fatal in the winter. The author speaks particularly of this one fact in connection with puerperal fever, and attributes it in great measure to the prevalence of faulty methods of ventilation, which draw damp, foul air to the sick-room from basement, cellar, or closet; all places where sewage contamination is likely.

Prophylaxis consists in preventing both poisoning from without and the absorption of peccant material generated in the patient's genital tract. The main factor in this latter defense is complete uterine contraction, which should be secured after every labor by the use of a firm binder and the administration of ecbolics, as quinine, cinnamon, nux vomica, ergot, and digitalis. The uterine douche is valuable, but should not be used unless there are indications that septic absorption is going on in the uterus.—*Brit. Med. Jour.*

HULKE ON A CASE OF LONG-CONTINUED PRIAPISM AFTER COITUS.—On Dec. 27, 1885, an artisan, aged 34, was admitted with priapism. His penis was stiffly erect, very turgid, hard, tender and painful. The greatest tenderness corresponded to the attached part of the left crus. The patient said that one week previously, after drinking heavily of cider, he had intercourse with his wife on going to bed at night. Neither he nor his wife was aware of the occurrence of any thing unusual in the sexual act. He afterwards fell asleep. On waking next morning his penis was still erect, and it was also very painful. This condition persisting, and the painfulness of the organ increasing, he was at length constrained to come to the hospital for relief. A mixture containing sulphate of magnesia and tartar emetic was given to the man at short intervals until he was nauseated and purged, and after this he was directed to take bromide of potassium in doses of fifteen grains, three times daily. The penis was smeared with extract of belladonna and unguentum hydrargyri.

On January 3, 1888, a week later, no obvious alteration in the state of the organ having occurred, the above treatment was abandoned and the continuous application of ice substituted for it. This was followed by a marked, but very slowly progressive, decrease of the turgescence. On Jan. 17th the penis had become soft, pendulous, and painless, so that he was then able to bear the pressure of his dress and to leave his bed. Next day he returned to his home. At that date the only remaining objective trace of the former condition was a small hard knot near the posterior extremity of the attached part of the left corpus cavernosum. Abstention from coitus during several weeks was strictly enjoined. He was next seen on February 19th, when he reported that he had obeyed the injunction till two nights previously, when he attempted coitus, but failed through incompleteness of erection. The further history is unknown.—*Lancet.*

CASE OF AORTIC ANEURISM.—Under the care of Dr. Dyson, Physician to the Sheffield General Infirmary. Reported by Mr. G. W. Crookes. The patient, thirty-four years old, a railway-spring worker—a very hard and laborious occupation. About two years ago he complained of severe pain in his left shoulder, dull, aching and much intensified by movement. Subsequently he had severe pain in the left side of the neck and down the arm, which at the time had the character of

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cervico-brachial neuralgia. Very little improvement was effected while in the Sheffield Infirmary, and he was sent to the sea-side. He returned thence very little better, and on re-admission to the Infirmary it was found that his left pulse was considerably less in volume than the right, and was a little later in the time of its beat. The pain in the neck and arm continued, and in addition he had severe pains and tenderness just over and just below the left sterno-clavicular joint. On careful examination a tumor was detected in this situation, which had most of the physical signs of aneurism. There was a patch of dulness about the size of the palm of the hand, expansive pulsation over the area of dulness, a systolic bruit, and in the centre of the dull patch, a swelling the size of a marble, which pulsated visibly and palpably, and threatened shortly to invade the intercostals and the skin. There was no thrill, no alteration in the pupils, no difference in the expansion of the two sides of the chest, no paroxysmal dyspnœa, no stridulous breathing, no alteration of voice, and no dysphagia. Heart apparently healthy. The treatment consisted in an ordinary liberal diet, scrupulous rest in bed, and the administration of iodide of potassium in increasing doses. He is now taking fifteen grains three times daily with no apparent inconvenience. His condition is greatly improved. The pain in the neck is much diminished, pain and tenderness over tumor nearly gone, pulsation is much less in quantity and distribution, and feels like the jog of a solidified body; the tumor is much less distinct. Patient has gained flesh considerably. There was no history of syphilis, the probable cause of the aneurism being the strain produced by the man's laborious work. His present condition would lead one to suppose that a cure is being effected.—*Med. Press and Cir.*

Laceration of the Cervix Uteri and its Relation to Disease.—In the *Archiv für Gynakologie* is a paper by Nœggerath, read before the Society of German Naturalists and Physicians in September, 1887. In this the writer opposes the operation of repairing the cervix. He says: Out of 100 cases of uterine disease which he had observed, in 50 the cervix had never been lacerated. Displacements of the uterus were equal in both—those lacerated and those not lacerated cases. Twice as many women without lacerated cervixes were sterile after the birth of their first born; and out of 20 cases of abortion, 12 occurred in women without lacerations. Erosions and eversions were more frequent in the nullipara. Ectropion was affirmed to be due to a swelling of the lips and might occur in an intact cervix. Eversion in cases of laceration was produced by introducing Sims' speculum, which put the anterior and posterior vaginal walls on a stretch, and thus caused a rolling out of the lips.

Nœggerath claims that women conceive more readily when the cervix is lacerated than when intact, and they abort less frequently; that displacements of the uterus are not produced by lacerations of the cervix; that hypertrophy of the uterus is an accompaniment, not a result of laceration; that laceration of the cervix has no influence on producing uterine disease. The erosions and ulcerations occur with equal frequency in the torn and in the intact cervix; that ectropion is not the immediate result of laceration, and that restoration of the original shape of the *portio vaginalis* can have no influence upon the existing condition of the uterus.—*Am. Med. Jour.*

Papoma.—There has lately been introduced to the notice of the profession in Canada, by J. Wyeth & Bro., of Philadelphia, through their agents in Montreal, Davis & Lawrence Conpany, a farinaceous food for infants and children, which deserves more than passing notice. It has been advertised in the *Record* before pronouncing our opinion. This we have done for the past four months, during which time Papoma has been the almost exclusive diet of artificially fed children under our charge. The results have been satisfactory in a high degree. The food was in every instance readily taken, digestion seemed to be carried on perfectly, and the bowels acted with marked regularity. Its power is great, for growth was steady. In several instances, where development was apparently at a stand-still, change of food to Papoma was followed in a few days by a decided improvement. We have, therefore, no hesitation in recommending Papoma to our readers as a very valuable addition to the list of infantile foods.—*Canada Med. Rec.*

Base-Ball Pitcher's Arm.—A. H. P. Leuf has contributed an interesting paper on this subject, in which he clearly sets forth the pathology of this affection. It seems that in its severer and more chronic forms we have a painful ostitis and periostitis, combined with a strain of the ligaments and muscles. In order to give the ball different curves individual sets of muscles are called into play. For instance, to give the in-curve, the pectoralis-major, the biceps, brachialis anticus, and flexors of the forearm; the out-curve is accomplished by the pectoralis-major, coracobrachialis, infraspinatus, teres-minor, and the ulner muscles; the down-curve strains especially the pectoralis-major, trapezious, deltoid, and serratus magnus; the up-curve is caused by the pectoralis-major, biceps and supinator previs. All of these movements are given in a quick, jerky manner, bringing a great strain on the individual sets of muscles, besides tending to separate the bones at the outer part of the elbow-joint, this being prevented by the biceps, supinator longus, and extensor carpi radialis longior.

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The symptoms produced by this affection are soreness, tenderness, myalgia, and severe continuous sickening pains, due to involvement of the bone. It is, of course, only in the long standing cases that there is an involvement of the bone.

The treatment should be prophylactic, and the pitcher should each day practise in the sun. Liniments, massage and rubbing are all useless. Heat is the best application, with elevation of the limbs. This will often relieve the pain in these cases. The main point in treatment is regular exercise, and not rest.—*Boston Med. & Surg. Jour.*

HYDROCEPHALUS.—Dr. James F. Goodhart, of London, in a paper on hydrocephalus in the *Archives of Pediatrics*, January, 1888, gives the causes of this affection as: 1. Cerebellar tumors (including tentorium and pons). 2. Chronic inflammation and adhesions at the base of the brain between the medulla and the cerebellum. 3. Congenital malformations. These, he says, no doubt act in one of two ways; there may be pressure upon the veins of Galen and the straight sinus, or there may be closure of the communication between the interior of the ventricles and the rest of the subarachnoid space. It might be thought that the pressure upon the veins, and the obstacle thus produced to the return of the blood from the choroid plexuses, would be a sufficient and readier explanation of all cases; but it seems clear from the occasional occurrence of congenital malformations, or of post-congenital adhesion and blocking of the aqueduct of Sylvius, that the mere closure of the ventricles is sufficient for the production of the affection. The congenital malformation is rare. Dr. Taylor has had one such case, the Sylvian aqueduct being obliterated, and it does not appear at first sight quite clear that the mere closure of the communication between the ventricles and the extra-ventricular subarachnoid space should so alter the conditions of the blood-pressure that its equilibrium is destroyed and hydrocephalus results. But it can be shown, he thinks, that this result is probable. It seems to him true, that by the conversion of the ventricles into a closed cyst, the ball-tap action of the cerebro-spinal fluid is in great measure rendered inoperative.

The points of his paper are these: that many every-day occurrences of practice are called hydrocephalus which are not so, and for purposes of discussion this may be taken to include, for time is wanting for specific allusion to the subject, that hydrocephalus and rickets are not often associated, as is very commonly asserted; that hydrocephalus is an infrequent occurrence, due to one of two or three conditions of advanced and irremediable structural change. As regards the treatment, he is not very hopeful, but thinks the only treatments possible, are the old-fashioned ones of firm strapping, the rubbing in of mercurials in such cases as may seem to be of inflammatory origin, and tapping. Believing, as he does, that the consolidation of the bones is a bar to the occurrence of hydrocephalus, he does not believe that systematic support, recommended by Gölis, Trousseau, West and others, has often been carried out with sufficient patience, and is inclined to believe that in suitable cases, paracentesis is deserving of a wider range of practice than it has received. None of these things can, in the nature of the case, show a large percentage of successes. "But," he concludes, "this is not the only occasion on which it happens that 'if by *any* means I can save *some*' must be our guiding principle and aim."—*Compend. Med. Science.*

BEUTIFAUL CHEMICAL PREPARATION.—A snow white mass of Caffeine, the active principle of coffee, 200 pounds and of great value, is now on exhibition in the window of William R. Warner & Co., 1228 Market Street. This beautiful crystalization represents ten tons of coffee, and is used as an ingredient in the preparation of Bromo Soda prescribed for the cure of headaches, migraine, nervousness, sea sickness, &c.—*Philadelphia Inquirer.*

THE LOVES OF THE BACILLI, is the title of the following verses, by H. S. C., quoted by the *Lancet* from the *St. James Gazette.*

Quoth Bacillus to Bacilla
(Surely everything has sex):
"It is quite enough to fill a
Soul with pride, to see the necks
Of these mighty men of Science
O'er the microscope bent low,
While beneath them in defiance
Spins the merry Vibrio.

"Proud am I to think, my Comma,
While the world rolls on its way,
Every fell disease springs from a
Fairy filament, they say.
Autocrats that tower Titanic
Have been known to bow to me;
Mighty potentates in panic
Disinfect at thought of thee.

"Rash would he be who should presage
That no germs behind us are;
We are part of that great message
Which outrings 'twixt earth and star.
What by thousands or by tens is
Multiplied, in vain they show;
Something lies beyond his lenses
Mortal man may never know!

"We are greater, my Bacilla,
Than all monarchs; for meseems
We need but exist to fill a
Strong man's brain with fever-dreams.
Such the thought my passion kindles,
O my microscopic bride:
Kiss me! although twenty Tyndalls
Have their eyes upon the slide!"

—*Weekly Med. Review.*

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THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, MAY, 1888.

The LANCET *has the largest circulation of any Medical Journal in Canada.*

THE LESLIE CASE.

Practitioners will have noticed with pleasure the reports in the daily press, showing that the plaintiffs in the celebrated case of Routh v. Leslie, lost their case entirely.

Dr. Leslie, of Hamilton, was called in May last to administer chloroform to Mr. Routh, who was to undergo an operation for hæmorrhoids. The man died on the table, and after a considerable interval, his widow brought an action for damages against Dr. Leslie. At the first trial the jury disagreed, but at the last trial held last March, they brought in a verdict favorable to Dr. Leslie on all the counts.

The evidence all went to show that Dr. Leslie, who is an old practitioner, had exercised the most scrupulous care in the administration of the anæsthetic; more care, we venture to say, than is usually thought necessary. Amyl nitrite was provided, as also forceps for dragging forward the tongue, and every conceivable precaution was taken to prevent untoward result, and to meet any possible emergency which might arise; the drug was given slowly and with the skill and care which years of experience had taught the administrator, and yet the man died while under the influence of the anæsthetic.

Law firms ever since the days of the celebrated case of Bardel v. Pickwick, have been found willing to undertake the defence of widows on spec. It is rather an anomalous thing, however, that counsel for the plaintiff in the case should have been so closely connected with the solicitor for the Ontario Medical Council, and should have used all his genius to get damages against a reputable practitioner, in a case that, even the evidence of the plaintiff's witnesses, showed quite clearly was a manufactured one. How it may appear to the medical mind at large of course we cannot undertake to say, but it seems to us that better taste would have been shown by the learned counsel from Toronto, in this case, had he passed the business over to some of his professional friends.

It is one of the anomalies of the nineteenth century that a jury, that "palladium of the people's liberties," composed of twelve men, honest and true, but totally incapable of forming a correct estimate of purely scientific and technical questions, such, for instance, as the action of chloroform upon the nerve centres, should have in their hands the assessment of damages in such technical and scientific cases.

It was a matter of street report that one of the jurors, a worthy farmer, whose knowledge of the functions of the medulla is no doubt limited, was heard to remark that he thought Dr. Leslie had exercised due care, etc., but that "Mrs. Routh was a widow" and should have some damages, because if it had not been for the doctors her husband might still have been living, and, besides, "it would learn the other doctors a lesson." To place in the hands of such men the power to mar a professional gentleman's reputation, and rob him of his property, is, we submit, one of the crying evils of the present day.

It will be remembered that a scheme was suggested by Dr. Henderson, of Kingston, at the last meeting of the Ontario Medical Association, for the formation of a Mutual Protection Fund, to enable medical men to defend themselves against unjust action for malpraxis; we hope to hear more of the elaboration of the scheme at the next meeting of the Association in June of this year. The idea is a good one and deserving of all support. Many a young man in Dr. Leslie's case might have been ruined, by not having the necessary means to employ counsel and carry on the defence in a proper manner.

It will not be out of place to refer to the absurdly low fees charged by some members of the

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profession for giving an anæsthetic. It is stated that *two dollars* is a common fee for giving chloroform for the extraction of teeth. Every time chloroform is given a slight risk is incurred of unpleasant circumstances arising, which may seriously damage the administrator, not only in reputation but in pocket, and yet men appear to be willing to incur that risk habitually for *two dollars*, chloroform and professional skill thrown in. This is not as it should be, but the race is keen, and struggling young physicians, especially in cities, are prepared to take some risk for two dollars. No excuse, however, can be found for old and wealthy members of the profession who constantly cheapen their work.

We congratulate Dr. Leslie on his being able to completely refute the charges of carelessness brought against him, and in this we are sure we but voice the sentiment of the profession at large. His totally undeserved troubles should point a moral for all of us, and teach us to give anæsthetics always as though a suit for malpractice was sure to follow.

METHOD OF EXECUTION OF CRIMINALS.

The State Commission appointed by the Legislature of New York about a year ago, to investigate and make a report upon the most humane and practical method of carrying into effect the sentence of death in capital cases has lately completed its work. The president of the Commission was Mr. Gerry, President of the Society for the Prevention of Cruelty to Children, than whom, perhaps, no abler man could have been chosen for the office. The work of the Commission seems to have been thoroughly performed, this report constituting a pamphlet of about 100 pages, and showing that in civilized countries there exist only five different forms of execution, viz.: the sword, the guillotine, the gallows, the musket and the axe, in the order of frequency as here placed.

Regarding the deterrent effect of severity in the operation of the law for capital offences, there seems to be a pretty general agreement of opinion that it is almost *nil*, and therefore, to obviate the objections raised by sensitive and humane persons against the methods as in vogue, as also against all capital punishment, the Commission is of opinion that the death sentence should be carried out in the most painless manner possible. The American method of hanging is characterized as cruel, uncertain, liable to miscarriage from mechanical bungling, as also leading frequently to distressing and harrowing scenes from unskilfulness on the part of the executioner. Resuscitation is also possible, and the public sentiment is also strongly against the hanging of women. All the other methods enumerated are open to similar serious objections, and the Commission believes that if instantaneous and painless death could be assured, none of the old stock objections to capital punishment, on the ground of cruelty, could be urged with any force whatever.

The treatment recommended by the Commission is electricity. The report says: "Death, as a result, is instantaneous upon its application. It is the duty of society to utilise for its benefit the advantages and facilities which science has uncovered to its view. An electric shock, of sufficient force to produce death, cannot produce a sensation which can be recognised. The velocity of the electric current is so great that the brain is paralysed."

Professor Thompson, of Lynn, Mass., in replying to a communication from the Commission, says: "The most certain way to produce death would be to pass the current down the spinal cord from the crown of the head, as by the sudden application of wet surfaces or sponges. The result would be, I think, with a sufficiently strong current, of the proper character, a painless extinction of all the faculties; and the current being kept on for a little time would result in such complete nervous exhaustion as to forbid any possibility of resuscitation by any means whatever."

A number of experiments performed upon dogs and witnessed by the Commission, enabled them to come to the following conclusions: 1. That death produced by a sufficiently powerful current is more rapid and humane than that produced by any agent at our command. 2. That resuscitation, after the passage of such a current through the body and functional centres of the brain, is impossible. 3. That the apparatus to be used should be arranged to permit the current to pass through the centres of function and intelligence in the brain.

The necessary arrangements for the practical working of the scheme are outlined. The cost would be very small, as it is suggested that for the

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whole Union there be but three places of execution. The treatment of the criminal, after sentence has been passed upon him, is of much importance. He should be kept in solitary confinement, and executed, *without publicity*, on a day not less than four, nor more than eight weeks after passing of the sentence. The body should be given over to the authorities for dissection or destruction, and on no account (if given to the family), should it be allowed to be exhibited. The dramatic death of many hardened criminals, the elaborate newspaper reports, and general public excitement attending many of the executions as carried on under the present system, are believed to lessen the horrors of the death penalty. It is suggested that the present laws be so amended that the new method may go into operation by January 1, 1889.

ONTARIO MEDICAL COUNCIL.

We may be permitted to express our pleasure at the determination which the Medical Council of Ontario has shown in maintaining the standing of the profession. At the recent examination, it refused to admit to the final examination any one who had not completed and shown certificates of attendance upon four regular winter sessions in the study of medicine. Hitherto the Medical Council was debarred from such action, as it was possible for any one, after having obtained a degree from a Canadian university, to proceed to Europe, where he could obtain a license to practise in Ontario, or any where else in the Dominion of Canada. Now this has been done away with and the Medical Council very wisely demands from all candidates for final examination four regular winter sessions.

Anyone who is familiar with the state of things some fifteen years ago, before the Medical Council of Ontario was in existence, and with the present condition of the profession, can easily recognize the great benefit which has arisen from the efforts of the Council, and there is no doubt but that body has the support and confidence of every right-minded member of the profession throughout the Province, in its endeavors to carry out its project of maintaining the interests of medical science. The preliminary examination of to-day is higher than that demanded by most of the licensing bodies of Europe, and the professional examinations are as carefully conducted and as practical as can well be made. We are not unmindful of the necessity of regulating the demand in any professional course, in some degree, by the wealth and resources of the country, and it cannot but be a good thing to encourage the study of medicine; at the same time it is very necessary that those having the great responsibility of treating the sick should be well qualified to do so; and, for our part, we are of the opinion that anyone engaging in the study of medicine will find in it sufficient to occupy his entire time, and can see no reason why four sessions of *six months each* should be thought sufficient; we would be inclined to go further and add a summer session of three months, one or two of which, at least, should be imperative during the four years of study. We are well aware of the advantages gained, by the apprentice, in the office of his preceptor, and we would not wish that the student be denied that experience; it is as essential for him to see, as far as possible, private as well as hospital practice, but we are decidedly of the opinion a summer course might, with advantage to the student, be demanded, and have no doubt the wisdom of the Medical Council of Ontario will work in that direction. We congratulate the medical profession of Ontario in the possession of a medical parliament whose determinations are to the advancement of the profession, and in whose hands we can so safely leave our interests.

ONTARIO MEDICAL ASSOCIATION.

The next meeting of this rapidly growing body will be held in the theatre of the Normal School, Toronto, on the second Wednesday and Thursday in June. If we may judge from the past, the coming meeting will be full of interest and productive of great advantage to the profession. It is certain that no Medical Association in the Dominion has done better work than this one. The numbers in attendance last year, both of Canadians and Americans, were greater than ever before, and we have good reason to believe that the next session will be even better than any of its predecessors. We shall be able to give more definite information in our June issue, but the arrangements already made are sufficient to warrant us in saying that every medical man in the

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country may attend with great profit. Some Americans have been invited from New York and from Kentucky.

The following gentlemen have been appointed to open and continue the discussions :

In Medicine.—Dr. Mullin, Hamilton, selects the subject and opens, followed by Drs. Barrick and Geikie of Toronto ; Digby, Brantford ; Waters, Cobourg ; Kaines, St. Thomas; and Forbes, Beachburg.

In Surgery.—Dr. Grassett selects the subject and opens, followed by Drs. Sullivan, Kingston ; Harris, Brantford ; McFarlane, Toronto ; Groves, Fergus ; Burt, Paris ; and Dupuis, Kingston.

In Obstetrics.—Dr. Powell, Ottawa, selects subject and opens, followed by Henwood, Brantford ; Ogden and Macdonald, Toronto ; Fenwick, Kingston ; and Hunt. Clarksburg.

The following gentlemen have been named to discuss the subjects opposite their respective names:

Dr. Daniel Clark, on some functional disorders of the nervous system of frequent occurrence in general practice.

Dr. J. H. Richardson, on any medico-legal subject.

Dr. Temple, on the use and abuse of pessaries.

Dr. Sheard, on the Pathological changes in the blood or tissues wrought by bacteria.

Dr. Oldright, on the sections and sutures in bullet wounds of the intestines.

Advisory Committee, the members of which, members of the Association may consult in cases of unjust suits against them for mal-practice :

Dr. Thorburn, Toronto, Chairman ; Drs. Moore, Brockville ; Sullivan and Henderson, Kingston ; Day, Trenton ; Richardson and White, Toronto ; Malloch, Hamilton; Harrison, Selkirk; Eccles, London ; and Taylor, Goderich.

SUBSCRIBERS TO THE LESLIE TRIAL FUND IN HAMILTON.

We, the undersigned medical practitioners, believing that the evidence brought forward in the recent trial, and the verdict of the jury, show that Dr. Leslie was subjected to an unjust prosecution, hereby subscribe the sums opposite to our names to assist in paying the expenses incurred.

Hamilton, April 5th, 1888.

Henry T. Ridley, $20 ; Geo. L. Mackelcan, $20 ; John A. Mullin, $20 ; Wm. Geddes Stark, $20 ; James White, $20 ; Herbert S. Griffin, $20; J. W. Rosebrugh, $20 ; Thos. Miller, $20 ; Wm. Philps, $20 ; E. H. Gaviller, $20 ; J. H. Wilson, $20 ; G. E. Husband, $20 ; E. H. Dillabough, $20 ; A. Woolverton, $10 ; G. M. Shaw, $10 ; A. C. Reid, $10 ; J. Lafferty, $10 ; R. N. Wallace, $10 ; C. S. Bingham, $10 ; E. Verum, $10 ; A. E. Mallock, $10; Jas. Russell, $10; T. W. Burgess, $5 ; T. W. Reynolds, $5 ; J. Ryall, $5 ; L. W. Cockburn, $5 ; D. G. Storms, $5 ; T. W. McConnachee, $5 ; E. P. Hillyer, $5 ; T. W. Biggar, $5 ; Jas. Anderson, $5 ; Drs. Anderson and Bates, $10.

We are heartily in accord with the spirit which prompted the brethren in Hamilton to aid Dr. Leslie in paying the expenses of the late suit. We understand that his expenses will amount to about one thousand dollars, and, as is usual in such cases, the plaintiff has no means, so that the burden of paying his own costs will fall entirely upon the defendant. It is stated also that Dr. Leslie could have made a compromise for a comparatively small sum, thus saving money, time and worry. He, however, felt that he could not conscientiously enter into any such agreement. The profession at large is indebted to him for thus bravely carrying the case through to ultimate victory.

We think, therefore, that members of the profession generally should, by their contributions, assist Dr. Leslie in bearing the heavy expenses connected with the two trials. Such a course will have a good effect in two ways—it will give courage to those who are unjustly accused, and it will demonstrate to the public that the profession will not allow one of its members to be persecuted without giving him brotherly aid.

A committee has been appointed, for Toronto, for the furtherance of this object, consisting of Drs. J. E. Graham, R. B. Nevitt, P. H. Bryce, and J. L. Davison, to any of whom contributions may be sent. Dr. James White, who is the receiver for Hamilton, will also receive contributions to this fund.

TRINITY UNIVERSITY, TORONTO, M.D.C.M. — *Nelles Scholarship*, $100, L. F. Cline.

L. F. Cline, J. S. Wardlaw, P. McLaughlin, J. Baird, J. P. Ogden, H. Becker, J. A. Neff, A. F. Tufford, W. R. Wade, W. H. Harris, F. G. Thompson, R. E. Walker, D. M. Campbell, A. N.

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Hotson, W. E. Harding, J. B. H. McClinton, Jas. Crawford, D. C. Meyers, G. H. Bowlby, J. H. C. F. Fisher, T. J. Jamieson—*Certificates of Honor.*

C. H. Hamilton, A. T. Emerson, C. J. W. Karn, A. W. McCordick, J. C. Connell, L. G. McKibbin, W. T. Campeau, M. Steele, F. P. Cowan, H. A. Minchin, R. A. E. Burns, C. James, A. J. Macaulay, E. S. Jackson, B. Lammiman, E. R. Bishop, F. F. Ferguson, Miss S. Carson, F. H. Kalbfleisch, J. F. Palling, J. A. Howitt, P. McNaughton, W. P. Chisholm—*First Class Honors.*

Miss M. McKay, T. P. McCullough, C. N. Anderson, J. M. Eaton, W. J. Maxwell, H. J. Meiklejohn, W. H. Merritt, J. W. O. Marling, W. L. Bain, J. Brown, J. W. Rowand, L. Auld, C. H. Trancy, M. G. Millman, J. P. Roger, R. J. Wade, A. E. Ardagh, W. H. Cooke, W. H. Jeffs, R. U. Topp, H. B. Thomson, D. E. Jones, R. E. Towle, T. O'Neil, R. P. Robinson, R. J. Macdonald, F. J. Bateman, D. O'Gorman, Miss C. Hone—*Second Class Honors.*

D. McK. Smellie, L. J. Hixson, E. C. McArthur, J. A. Fitzgerald, J. Henry McFaul, H. C. S. Elliott, J. B. Fraser, D. Jamieson, T. A. Wright, Wilton Pratt, A. H. Garratt, E. H. Horsey, T. C. Baker, J. H. Lowe, G. B. Carbert, J. D. Deacon, E. H. Greene, D. A. Kidd.

Primary—J. S. Harris, A. Ross, J. W. S. McCullough, J. R. Macdonald, F. R. Clarke, A. J. Niddery, A. J. Murchison, S. W. Allingham, F. W. Penhall, H. J. Cummings, W Reid, R. W. Rooney, C. B. Oliver, J. M. Sifton, R. Hill—*Certificates of Honor.*

E. J. Boyes, H. W. Walch, F. A. Drake, E. S. Rice, C. McCue, W. H. Alexander, A. H. Speers, H. T. Arnall, T. B. Richardson—*First Class Honors.*

M. Ferguson, R. M. Hillary, T. McEdwards, R. L. Orton, W. J. Fletcher, E. H. Webster, A. M. Spence, O. E. McCarty, W. F. H. Newberry, G. Hargreaves, J. C. McGillivray, J. F. Dolan, G. M. Harrison, Miss M. L. Agar, Mrs. J. E. Lynd, W. D. Springer, J. A. Dinwoody, F. Preiss, E. R. Morton, J. J. Gee, J. A. McGregor, L. E. Morgan, J. F. B. Rogers, W. A. Sargent, J. C. Bell, J. A. Ghent, Miss S. P. Boyle, C. W. Morey, J. F. Wren, W. Wight, J. W. Cunningham—*Second Class Honors.*

R. F. Hay, A. C. Beatty, W. A. Jones, Miss M. Hutton, D. K. McQueen, F. J. Ewing, C. B. Coughlin, D. McLeod, M. C. Black, W. S. Ward, J. Honsberger, J. B. Guthrie, R. McGee, W. A. Thompson, P. Drummond, J. D. Berry, J. A. Mills, E. T. Boyes, H. E. Strathey, A. H. Garratt, D. E. Jones, F. H. Kalbfleisch, J. F. McCormack, T. S. McGillivray, D. D. O'Gorman.

TRINITY MEDICAL COLLEGE.—*Fellowship Degree*—W. R. Wade, *Gold Medal;* L. F. Cline, *First Silver Medal;* Jas. S. Wardlaw, *Second Silver Medal.*

Wade, W. R., Cline, L. F., Wardlaw, J. S., Bowlby, G. H., Fisher, J. H. C. F., Neff, J. A., Meyers, D. C., Campbell, D. M., Crawford, Jas. —*Certificates of Honor.*

Anderson, C. N., Ardagh, A. E., Baird, J., Burns, R. A. E., Bishop, E. R., Campbell, Jos., Cowan, F. P., Emmerson, A. T., Ferguson, F. F., Howitt, J, A., Harding, W. E., Hotson, A. N., Hamilton, C. H., Jones, D. E., James, C., Jeffs, W. H., Kalbfleisch, F. H., Karn, C. J., Lammiman, B., McClinton, J. B. H., McCordick, A. W., McNaughton, P., McDonald, R. J., Marling, J. H. O., Merritt, W. H., Minchin, H. A., Ogden, J. P., Palling, J. F., Rowan, J W., Steele, M., Thompson, F. G., Topp, R. U., Walker, R. E., Wade, R. J.—*First Class Honors.*

Ellicot, H. C. S., Fitzgerald, T. A., Garratt, A., Hixson, L. J., Meiklejohn, H. J., Millman, M. G., Rogers, J. L., Thomson, H. B., McFaul, J. Henry —*Second Class Honors.*

Primary—Harris, S. S., McCullough, J. W. S., Macdonald, J. R., Clarke, F. R., Niddery, R. J., Murchison, A. J., Allingham, L. W., Penhall, F. W., Sifton, J. M., Oliver, C. B., Hill, R.—*Certificates of Honor.*

Boyes, E. J., Drake, F. A., Alexander, W. J., Speers, A. H., Arnall, H. T., Richardson, B. F.—*First Class Honors.*

Hilary, R. M., Fletcher, W. J., McCarty, O E., McEdwards, T., Newberry, W. F. H., Hargreaves, G., Dolan, J. F., Harrison, G. M., Dinmoody, J. W., Preiss, F., Morton, E. R., Gee, J. J., McGregor, J. A., Morgan, L. E., Rogers, J. F. B., Sargent, W. A., Cunningham, J. W.—*Second Class Honors.*

Berry, J. D., Beatty, A. C., Boyes, E. T., Cummings, H. J., Ewing, F. J., Honsberger, J., Hay, R. T., Jones, W. A., Mills, J. A., McGee, R., Strathy, H. E., Thomson, W. A.

Scholarships:—First Year—James Sutherland, 1st Scholorship, $50; Robert Knechtel, 2nd Scholarship, $30; C. C. Fairchild, 3rd Scholarship, $20. *Second Year*—J. S. Harris, 1st Scholarship, $50; J. W. S. McCullough, 2nd Scholarship, $30.

Special Prizes—The Special Prize for the highest in Physiology of the First Year, Jas. Sutherland, value $25. The "Dr. John Fulton Memorial Prize" for the highest standing in Surgery, where the student has spent *four* complete Winter Sessions at the College, D. C. Meyers, value $50. Special Prize given by "Trinity Medical College" for very high standing in the *recent Primary Examinations at Trinity University*, A. Ross, value $30.

QUEEN'S UNIVERSITY.—The following list com-

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prises the names of the successful candidates at the recent M D.C.M. examinations at Kingston: —*Gold Medalist*, W. H. Downing; *Silver Medalist*, E. McGrath. T. C Baker, W. P. Chamberlain, J. C. Connell, M.A., W. H. Cooke, Miss A. G. Crane, Miss Elizabeth Embury, J. B. Fraser, A. R. Gillis, E. H. Horsey, D. Jamieson, T. J. Jamieson, F. H. Koyle, Miss Annie Lawyer, J. S. Livingstone, C. O. Mabee, C. N. Mallory, W. J. Maxwell, E. S. Mitchell, S. H. McCammon, T. S. McGillivray, Miss Nettie Ogilvie, T. O'Neil, W. F. Pratt, Wilton Pratt, J. W. Robertson, R. P. Robinson, P. K. Scott, D. McK. Smellie, A. D. Walker, A. W. Whitney, T. A. Wright, Rev. J. F. Smith, Francis J. Bateman, William E. Harding, Kenneth Henderson, Chas. James, Frederick H. Kalbfleisch, Thomas P. McCullough, Hiram B. Thompson, Wm. B. Wade, James S. Wardlaw. John Duff and M. E. McGrath get the Surgeonries of the General Hospital, and O. L. Kilborne and A. Gandier, College Demonstrators of Anatomy.

WOMEN'S MEDICAL COLLEGE, KINGSTON.—Miss Mitchell, of Montreal, and Miss Craine, of Smith's Falls, who graduate from the Women's Medical College this year, were equal for the honour of the Kingston Scholarship of $60. It will be divided. Miss Isabella McConville, of Kingston, carried off the Trout Scholarship of $50.

THERAPEUTICS WITHOUT ALCOHOL.—The question of the necessity for the use of alcohol in medicine may be considered as being nearly set at rest, yet there are a few practitioners who believe it can be safely omitted from the list of therapeutic agents. In this connection the following from the *Br. Med. Jour.* will be interesting to our readers:—"The Temperance Hospital has been in existence now about twelve years, and the annual report for 1886-7 may be studied with advantage in order to compare the results with those of other hospitals. It must not be supposed that the hospital only receives abstainers, though these are in the majority, probably due to the large proportion of infants and children. In the surgical department the results have been very satisfactory, so far as one is enabled to judge from mere figures, but turning to the medical cases, we may restrict examination to one or two groups of disease with advantage. Out of the thirteen cases of acute pneumonia four (abstainers) died, one of them on the fifty-fourth day from exhaustion. Only four cases of typhoid fever were admitted in all, and although the cases were of young people—15, 7, 14, and 32, respectively—and comprised three abstainers, they all proved fatal. The treatment was the same as elsewhere, and the only difference consisted in the non-exhibition of alcohol. Then again, simple exhaustion, eighty-seven days after the onset of the disease, proved fatal in one instance. The average stay of patients in the hospital would seem to show that convalescence is unduly prolonged, and this notwithstanding the fact that the list of cases comprises several of "nasal catarrh" and other trivial complaints. The only occasion on which alcohol was administered was in a case of operation for strangulated hernia, in which death resulted from an unreduced constriction. Every credit is due to the registrar, Mr. Leopold Hudson, for the clear and practical manner in which he has tabulated and arranged his figures. We shall look forward with interest to future reports drawn upon the same excellent plan, as it is only by comparing results that medical men will be enabled to judge the merits of treatment without alcohol. Thanks to the impartial summary with which the report opens, it is easy to grasp its general tenor. It constitutes an innovation which other hospitals would do well to copy.

CARELESS USE OF ANTIPYRIN.—The general use of antipyrin, indulged in by the laity, without medical supervision, calls forth the following timely warning from the *Lancet*. "The public attention given to the latest remedy for sea-sickness and many other affections which flesh is heir to, has its percentage of evil as well as good. Every medicament is not an unmixed advantage, and to suppose that antipyrin may be taken recklessly, any more than chloral, is to adopt a position of a dangerous kind. Antipyrin has on several occasions been administered with unexpected results. It is a drug which has undoubtedly powerful effects on the nervous system, especially as tending to produce a lowering action. We must strongly protest against its indiscriminate employment without the supervision of a medical man."

NEW METHOD OF REDUCING DISLOCATION OF THE SHOULDER.—Dr. Abril, *Lond. Med. Rec.*, inverts the usual proceeding for reduction of dislocation of the shoulder, viz., by fixing the humerus and causing the glenoid cavity to descend upon its head. This he accomplishes in the following way.

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"He makes the patient stand with a crutch in his axilla; he then holds the hand of the affected side, making slight traction downward; the patient is now to let himself down as if he were going to fall on his knees, and as he falls the head of the humerus glides into its normal position, and the patient is surprised at finding himself cured." The pain is so trifling that no anæsthetic is required.

THE CANCER BACILLUS.—The *Lancet* thus sums up what the rival experimenters have to say about the discovery of the cancer bacillus, which it says "threatens to have as many claimants as the authorship of Junius's Letters. In addition to Dr. Scheuerlen, who was the first before the public, two Italians announce themselves as having independently made the discovery — Dr. Barnabei, Professor of Clinical Medicine at Siena, and Dr. Sanarelli, a graduate and teacher of the same school. But, it seems, a compatriot of Scheuerlen is also in the field to claim priority in the discovery—Dr. Schill. France, too, not to be outdone, has her special claimant in Dr. Perin. And, finally, Brazil, in Dr. Domingos Freire, seeks to vindicate the honor of the discovery to the New World."

TWINS, ONE BLACK AND ONE WHITE.—Dr. Newton Hill, of Pickensville, Ala., sends to the *Med. and Surg. Rep.* the following report of a case: "A young negro girl, about eighteen years of age, gave birth to twins at seven months, one of which was as black as the *ace of spades*, and the other as white as any white child I ever saw. This girl has been engaged as nurse in a white family a part of a year, but she has associated with white and black. Both cords were attached to the same placenta. Is this merely a freak of nature, or is it possible that they have different fathers? I would like to have the opinion of some of the brethren."

A NEW ANTISEPTIC.—Creolin has been the subject of investigation by Fröhner (*Fortschr. der Med.*). He says it is a non-poisonous antiseptic and is preferable to carbolic acid. It exists as a syrupy liquid, soluble in water and in alcohol in all proportions. He has found it serviceable in the following conditions: (1) in scabies, (2) as an antiseptic (3-per-cent. solution), (3) in chronic non-parasitic eczemas, (4) as an inhalation in infectious bronchitis and broncho-pneumonia, (5) in infectious or zymotic gastric and intestinal catarrh, to be given internally in doses of one to two grammes (℥ xv to ℥ xxx) of a 1-per-cent. solution.

TREATMENT OF URÆMIA. — The following has been used with success by Rolland, (*Jour. de Méd*).

Ext. jaborandi (alcohol.),
Ext. scillæ,
Resin. jalap.,
Resin. scammon, . . . āā gr. ¾.

In pill form.

Four or five pills in twenty-four hours, with an exclusively milk diet, yielded good results.

FOR HOARSENESS AND CATARRHAL COUGHS.—The *Med. News* gives the following as a very useful preparation for the above:—Ammonium acetate, 3 parts; potassium bromide, 3 parts; tincture of belladonna, 1½ parts; tincture of aconite, 2 parts; infusion of balsam of tolu, 150 parts; syrup of balsam of tolu, 50 parts. A tablespoonful is to be taken every three or four hours.

VOMITING OF PREGNANCY.—It is stated, *West. Med. Rep.*, that a single vesication over the 4th and 5th dorsal vertebræ, "promptly and permanently relieves vomiting of pregnancy, no matter at what stage."

NEW ANATOMICAL DISCOVERY.—It is stated that Dr. Bryant, of Boston, has discovered that there are valves in the portal and mesenteric veins, during infant life, in seventy-five or eighty per cent. of cases. These disappear as the child grows.

PERSONAL.—DR. G. STERLING RYERSON, leaves May 1st for a professional trip to Germany, taking in the hospitals of New York, London and Paris, by the way. The Dr. intends studying new methods in the extraction of cataract, especially immature cataract. He intends to return about the middle of July.

Books and Pamphlets.

LOMB PRIZE ESSAYS. No. 1, Healthy homes and foods for the working classes; No. 2, The sanitary conditions and necessities of school-houses and school-life; No. 3, Disinfection and individual prophylxis against infectious diseases; No. 4, The preventable causes of disease, injury and death in American manufactories and work-

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shops, and the best means and appliances for preventing and avoiding them. By. Drs. V. C. Vaughan, D. F. Lincoln, George M. Sternberg, and Mr. G. H. Ireland. Published by the American Health Association.

ON A NEW TREATMENT OF CHRONIC METRITIS and especially of Endo-metritis with Intra-uterine Chemical Galvano Cauterizations. By Dr. Georges Apostoli. Translated by A. L. Smith, B. A., M. D. 1888. George S. Davis, Detroit, Mich.

Dr. Smith's translation is admirable. Our readers will remember an article by the translator which appeared in our Dec. No. on Electricity in Gynecology. The great interest which is taken in this method of treatment will render this little work of 113 pages very acceptable to the profession. The methods of the author are placed before the reader with precision and clearness.

We commend the book to those who are anxious to know what Apostoli and others are doing in this line of treatment, which, it would appear, has come to stay.

DISEASES OF THE HEART. By Alonzo Clark, M. D., LL.D., Emeritus Professor of the Principles and Practice of Medicine, etc., College of Physicians and Surgeons, New York. One Octavo Volume, 251 pages. Price, $2.75. E. B. Treat, Publisher, 771 Broadway, New York.

This is the sixth volume of Treat's Medical Classics, and we think presents a better appearance than the former ones, which were not up to the mark as regards the printers' and binders' workmanship.

The information gathered in this volume embodies the substance of his teachings and lectures on "Diseases of the Heart" given to his students. Nothing is omitted which would tend to give a clear exposition of the views which he inculcated as teacher.

The volume cannot therefore fail of being of great value to practitioners, as it contains the results of a singularly calm and judicious mind of one who had long and pre-eminent experience, and whose ripened harvest of thought is gathered into this sheaf, which ought to find an honored place in the medical granary among other distinguished sheaves.

OPHTHALMIC SURGERY. By Robert Brudenell Carter, F. R. C. S., Ophthalmic Surgeon to St. George's Hospital and to the National Hospital for the Paralyzed and Epileptic; and William Adams Frost, F. R. C. S, Assistant Ophthalmic Surgeon to the Royal Westminster Ophthalmic Hospital. Illustrated with a chromograph and ninety-one engravings. Philadelphia: Lea Brothers & Co.

This is a useful treatise on the eye, devoting its space principally to diagnosis and treatment. It deals with the ordinary injuries and diseased states of the eye, and embraces the newest and most practical methods of treatment of the day, and we are sure it is a work which will receive great patronage and be of great use to the profession.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By James Nevins Hyde, A.M., M.D. Professor of Skin and Venereal Diseases, Rush Medical College, Chicago, and Physician for Diseases of Skin to the Presbyterian Hospital, Chicago. Second edition, enlarged. Philadelphia: Lea Brothers & Co.

This work is profusely illustrated and an able treatise of 676 pages. In it will be found treated every disease of the skin that the practitioner is ever likely to meet with, and its remarks on treatment are especially to be praised. The book is well written and a very readable and practical treatise.

DISEASES OF MAN; Data of their Nomenclature, Classification and Genesis. By John W. S. Gouley, M. D., Surgeon to Bellevue Hospital. New York: J. H. Vail & Co. London: H. K. Lewis. 1888.

PRESCRIPTION FOR RACHITIS.—The following is from the *Progrès Médical:* Phosphorus gr. 1-6; oil of sweet almonds f ʒ viiss; gum arabic (powder) of each ʒ iii ¾; distilled water f ʒ xss. M.—Two or three teaspoonfuls in coffee, a day.—*Am. Med. Digest.*

Births, Marriages and Deaths.

At Brantford, April 3rd, E. E. King, M.D., of Toronto, to Isabella, daughter of J. Franklin Ott, Esq.

At Brockville, Ont., on the 18th April, Jacob Edwin Brouse, M.D., aged 48 years.

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THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

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Original Communications.

RAPID UTERINE DILATATION.*

BY A. F. ROGERS, M.D., L.R.C.S. ED., OTTAWA.

There are few minor operations in gynæcology which can show such good results and as widely applicable as that of rapidly dilating the cervical canal. The operation is far from being a panacea for all the ills produced by uterine disease, but in properly selected cases the benefits arising therefrom are prompt and decided. By this method, cases of stenosis can be cured more readily and with less danger than by the operation of incision, as advocated by the late Sir James Simpson, Dr. Robert Barnes and Dr. Marion Sims. Indeed, this operation has almost entirely superseded the latter on this side of the Atlantic, and this is not to be wondered at when we consider the anatomical peculiarities of the part involved, and the sources of danger in the operation of incision. Again, by this means we are frequently enabled to dispense with the tedious and somewhat dangerous method of dilating the cervix by means of tents, where it becomes necessary to make applications to the intra-uterine mucous membrane. We are all aware of the danger of intra-uterine injections, unless there is a perfect patency of the cervical canal, to allow the fluid to freely and rapidly escape, and the usual mode of accomplishing this has been by the expansion of tents. By means of rapid dilatation more perfect patency may be secured, without the tediousness and danger of dilatation by tents, and the nozzle of the syringe can be passed between the divergent blades of the dilator. I shall briefly describe the method of performing the operation and then state the various conditions to which it is applicable, and finally give the history of a few cases which I have treated by this means.

1. *The Operation.*—By far the best uterine dilator which we, as yet, possess, is Dr. William Goodell's modification of Ellinger's dilator. The great advantage of this instrument is that the blades open parallel to each other, and it is provided with a screw to retain the blades open when necessary. Dr. Sims and Dr. Atlee each devised an instrument for this purpose, but both lack the parallel expansion of the blades. To perform the operation of rapid dilatation thoroughly, an anæsthetic should be given, although for partial or incomplete dilatation—such, for instance, as for using intra-uterine applications or injections—it is not always necessary. Having anæsthetized the patient, she is brought to the edge of the table or bed and each foot held by an assistant. A bivalve or duck-bill speculum is introduced, and the uterus steadied by a tenaculum or vulsellum. It is best now to pass a probe into the uterus for the purpose of ascertaining the size and direction of the canal. The dilator is then introduced and the handles pressed gradually together, and then held there for ten or fifteen minutes. The difficulty in the procedure is in the introduction of the dilator. To overcome this, it is recommended to use at first an Atlee dilator or a small size Goodell's Ellinger, and introduce it as far as it will go. Then, by stretching the part it occupies, the stricture or contraction above yields to a certain extent, allowing further introduction and dilatation, and so on until the entire cervical canal is dilated "or tunnelled out." That accomplished, the larger instrument should be used, inasmuch as the more perfect the dilatation the less the chances are of recurrent retraction. When the os is so small as not to permit the entrance of the point of the dilator, it is recommended by Goodell to produce enlargement by means of the closed blades of a pair of sharp-pointed scissors introduced with a boring motion. As a certain amount of pain and soreness is felt after the operation, a suppository of morphia or opium introduced into the rectum will be beneficial. While the operation of rapid cervical dilatation is, perhaps, most conveniently performed as described, with the patient in the dorsal position, yet many gynæcologists operate exclusively with the patient

* Read at a meeting of the Rideau and Bathurst Medical Association.

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on the left side, and for partial dilatation the latter position offers many advantages.

2. *Conditions to which the operation is applicable.*—(*a*) Dysmenorrhœa. This condition may be due to stenosis of the cervical canal, or flexion with stenosis, or flexion alone. It seems to me impossible to differentiate these conditions by subjective symptoms. It is generally stated that where stenosis exists alone, the pain is excessive before the flow and gradually ceases as it becomes thoroughly established; whereas in flexion the menses are discharged in gushes, caused by the pent-up fluid straightening out the canal. All subjective symptoms are unreliable, simply because the excessive pelvic and ovarian hyperæmia, consequent on the obstruction, tends to mask the naturally concomitant symptoms of either stenosis alone, or when combined with flexion. Where obstruction exists the vaginal portion of the uterus usually becomes elongated and pointed, with, sometimes, the os externum exceedingly small. Likewise, the fundus becomes enlarged, and the sound frequently gives a measurement of three or three and a half inches. In stenosis, Dr. Barnes says, the seat of obstruction is generally at the os externum, and where obstruction exists at the os internum, it is due to flattening of the walls by flexion. Whether this be true or not as a rule, rapid dilatation of the cervix will rectify the flexion and cure the stenosis at the same time, when these conditions are found to exist together. The consequences of obstruction are thus given by Barnes: "(1) Congestion and enlargement of the body of the uterus, disposing to menorrhagia, and causing uterine spasm and colic. (2) A similar condition of the fallopian tubes. (3) Congestion, enlargement and inflammation of the ovaries. . . . (4) As an ulterior result continued obstruction may entail, through the action of inflammation or long interference with function, atrophy of the ovaries and extinction of the menstrual phenomena." When we consider the consequences which must ensue from the long continued congestion of the uterus, fallopian tubes and ovaries, and when we consider the fearful suffering entailed on those in whom obstruction exists, we cannot magnify too highly any means calculated to afford relief. To overcome the condition of stenosis the operation of incision of the cervix was devised, and to accomplish this, various cutting instruments have been invented. Simpson's and Greenhalgh's metrotomes and Küchenmeister's scissors, with others of the same kind, have been and are still used. The results, however, from the cutting operation are not nearly so successful as those from rapid cervical dilatation.

(*b*) Sterility. Where sterility is due to stenosis or anteflexion, then this operation will frequently bring about a cure. Marriage, as a rule, increases the dysmenorrhœa arising from obstruction, and often this symptom is developed after marriage in women who did not suffer from it previously. On examination the fundus will often be found pressing on the bladder, and it will be almost impossible to introduce a probe on account of the flexion. In such a case, rapid dilatation will not only widen out the cervical canal and thereby facilitate fecundation, but it will straighten the flexion, and, in consequence, overcome the obstruction to pregnancy. Where obstruction has existed for years, it cannot be wondered at that the general disorganization in the lining membrane of the uterus, fallopian tubes, and in the ovaries, resulting from the prolonged hyperæmia, renders fecundation doubtful, even after the first cause has been removed. If the operation cures the dysmenorrhœa, however, and allows a free flow for the menstrual fluid, and if the operation is repeated if contraction occurs, there is every reason to hope that time will rectify the other conditions and fertility will ensue. Fortunately statistics show that pregnancy frequently occurs soon after the obstruction has been removed.

(*c*) Intra-uterine Medication, etc. Frequently it is necessary to make a digital examination of the interior of the uterus, and this operation renders easy what is a difficult proceeding where dilatation is produced by tents. Again, in cases of menorrhagia suggesting a growth springing from the interior of the uterus, the operation of rapidly dilating the cervical canal not only gives a means of diagnosis, but if a polypus is discovered, materially facilitates its removal. Generally in cases of menorrhagia the laxity of the tissues of the cervix, resulting from the depletion, renders easy the operation of dilatation, and usually the physician can dilate the cervix and remove the polypus, if present, at one operation, contrasting favorably with the long, tedious waiting of dilatation by tents. Lastly, for using the currette and

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for intra-uterine applications and injections, this operation offers many advantages over any other means of dilatation.

In regard to the *after-treatment*, a hot water injection should be used immediately after the operation, and this should be employed, also, two or three times a day for a few days. It is advisable, likewise, for the patient to remain in bed for three or four days. If a proper time has been selected to perform the operation, viz., within a few days after menstruation, the danger of hæmorrhage is exceedingly small, much less at any rate than after the cutting operation, and the danger of inflammation is not so great as after using relays of tents.

3. *Clinical Cases.*—I shall now give a brief account of five cases, in whom I have operated by this method:

Case 1.—Mrs. M. came under my care July 6th, 1886, married for three years, never became pregnant; slight dysmenorrhœa previous to marriage, which had gradually increased until her suffering became intense, necessitating large doses of morphia at the periods to give relief. On examination, the cervix was found greatly hypertrophied and the fundus doubled forward, pressing on the bladder. The cervical canal was small, and it was with difficulty a probe was passed, and gave a measurement of three inches. The case was plainly one of anteflexion, coupled with a narrow cervical canal. The operation of rapid dilatation was performed under chloroform. No bad symptom arose after the operation, although she was kept in bed four days and hot water injections used. In this case the dilatation was thoroughly performed and the flexion completely straightened. The time selected for the operation was three days after menstruation. The dysmenorrhœa was completely cured, and as she moved to the States shortly afterwards, I do not know whether pregnancy occurred or not.

Case 2.—Miss L., aged 27, came under my care Aug. 18th. For the past three years has suffered greatly from dysmenorrhœa, causing her to be fretful, nervous and irritable. She attributes the trouble to a severe drenching received in October, which caused an attack of inflammation of the lungs. At the time the wetting occurred she was menstruating, and the flow suddenly ceased. Before resorting to an examination, every known remedy in the shape of medicine was used with no effect whatever. In the presence of her mother she was placed under chloroform and an examination made. The cervix was long, narrow and pointed, and the os-externum so small that only a fine surgical probe could be passed, and showed the uterus to be over three inches in length. No flexion existed, but the fundus was enlarged and slightly retroverted. Atlee's dilator was first used and the full extent of dilatation by that instrument accomplished. Then the Goodell Ellinger dilator was used, and the handles slowly and gradually brought together and kept there ten minutes. After the operation the uterus was shortened and the conical condition obliterated. She was kept in bed for a week, and hot water injections used, and no symptom of inflammation arose. On the first occasion of menstruation after the operation she suffered considerably, but the pain became less and less at each period, and four months afterwards the dysmenorrhœa had ceased, the nervous system became stronger, irritability subsided, and she became strong, robust and healthy, and as such she has continued since.

Case 3.—Mrs. G., aged 22, married ten months, has not been pregnant; dysmenorrhœa began soon after marriage and it is increasing, frequent and painful micturition, bodily health fairly good. On examination, anteflexion and stenosis of cervical canal at internal os. Operation of rapid dilatation with Goodell's dilator, and the flexion straightened. In order to more thoroughly complete the latter, the instrument was withdrawn, carefully re-introduced and the blades opened opposite the flexion. The result was that the dysmenorrhœa ceased immediately, and pregnancy took place shortly after the operation.

Case 4.—Mrs. S., aged 31, married twelve years, no children and was never pregnant. Has always had dysmenorrhœa, the pain beginning several hours previous to the period and lasting a day or two after menstruation set in. Lately, excessive vesical irritability has arisen, the pain has increased and menorrhagia developed, the period lasting seven or eight days, and the quantity lost four times what was usual. From the condition reported, I suspected an intra-uterine polypus, and advised an examination. The uterus, on examination, was found very much hypertrophied, the fundus enlarged and retroverted, but there was no

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flexion. On attempting to pass the sound the cervical canal was found narrowed, and at the os-internum complete stoppage occurred. With difficulty a fine probe was inserted. I freely dilated the cervix with the patient under chloroform, but found no evidence of a polypus. Clearly, the menorrhagia was due to hypertrophy consequent on the stenosis. The result was that the menorrhagia gradually ceased, and the dysmenorrhœa was very much relieved although pregnancy has not occurred.

Case 5.— Mrs. F., aged 28, married seventeen months, never has been pregnant; dysmenorrhœa severe, pain was present, slightly, previous to marriage. On examination there was found no flexion, but the cervical portion was elongated and the os-externum exceedingly small. The operation of rapid dilatation was performed with the patient under chloroform. The result was not satisfactory so far as the dysmenorrhœa was concerned, as it was only slightly relieved, but three months after the operation conception occurred.

As I have already hinted, this operation, while undoubtedly beneficial in suitable cases, should not receive excessive laudation, for fear of its being recklessly applied Perhaps in no branch of the science of medicine have so many unwarranted and unworthy medical and surgical procedures been adopted, in blind faith, as in the science of gynæcology. At one time everything was ulceration, and many a uterus was unnecessarily cauterized. Again, displacements became the pass word to gynæcological success, and inventors plied their ingenuity to discover the most perfect support. Thus, many able gynæcologists held that anteversion of the uterus was a pathological condition, and anteversion pessaries in abundance was the result. We all know, now, that the natural position of the uterus is the condition of anteversion, and any pessary applied to rectify the same, must of necessity increase the very condition which the version was claimed to cause—viz., vesical irritability. Likewise, the condition of anteflexion can only be said to be pathological when it produces dysmenorrhœa. Not long ago, Dr. Emmett, of New York, started the theory that in laceration of the cervix was to be found the true solution of so many of the obscure female diseases, and that in the operation of trachelorraphy was to be secured the long-sought for panacea. How soon this faith became established and gynæcological literature teemed with its success. Recently, Prof. Nœggerath, of Wiesbaden, has thoroughly enquired into the subject, and entirely disproves almost every contention of Dr. Emmett and his followers. He shows that laceration of the uterus does not conduce to miscarriage and that it increases the chances of conception; that the position of the uterus is not affected by it; the axis is not elongated thereby, erosions, and ulcerations, and cervical disease are not a consequence, and eversion of the lips is never directly produced by it. Finally, he proves that laceration has no influence in producing uterine disease, either as regards frequency or intensity, and the restoration of the shape of the cervix can have no influence on the uterus. Thus another theory is exploded, and another discovery proved fallacious if Nœggerath's views be sustained. Undoubtedly grains of truth lie hidden in the chaff of all these statements and theories; time and patience, and earnest, honest investigation are needed to place the truth beyond the cavil of blind worshippers of any one doctrine. I take it that gynæcology, like ophthalmology and laryngology, requires particular knowledge and experience for an accurate diagnosis; but the nervous phenomena playing so prominent a part in the subjects of these diseases, must be well understood and carefully considered in order to avoid error.

NECROTIC TONSILLITIS.*

BY A. McPHEDRAN, M.B., TORONTO.

The name *diphtheria* always conveys to the lay mind so much dread, and justly so, that all cases of pseudo-diphtheria should, when possible to do so with certainty, be carefully distinguished to avoid giving needless alarm. The two following cases bear a certain resemblance to diphtheria, but at the same time present unusual characters worthy of consideration.

Case 1. M T., aged five; a healthy child, of good family history. Her mother had large tonsils, which had to be removed. The child's tonsils were very large, almost meeting across the

* Read at the Toronto Medical Society, at the stated meeting, May 17th, 1888.

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isthmus of the fauces. She was subject to frequent attacks of catarrhal sore throat. On November 26th, 1887, she became seriously ill, with a temp. of 103.5° and noisy, difficult respiration. On examining the throat, there was observed on the left tonsil a grayish, gelatinoid-looking, raised patch, about the size of a ten cent piece, intimately adherent to the tonsil and surrounded by deeply inflamed membrane. Swallowing was painful, the left cervical glands slightly enlarged. The appearance of the patch differed materially from the fawn-colored, tough-looking, opaque patch of diphtheria. Moreover, it was slightly marked in a stellate manner; the markings became more distinct later on. The patch separated *en masse* in four days, leaving a raw, ulcerated surface that healed with fairly distinct cicatricial contraction, reducing somewhat the size of the tonsil. Until the patch separated the temperature continued elevated, with thirst, loss of appetite and considerable prostration. The breath only slightly offensive. Convalescence was slightly protracted, but there were no paralytic symptoms Isolation though advised was very imperfectly carried out. None of the other members of the family, which consisted of the grandmother, parents and a younger child, contracted the disease.

Case 2 differs considerably from the foregoing. Mrs. M., aged 50; from the country, visiting a sister whom she was nursing in confinement. She was a delicate woman, whose throat often gave her trouble; both tonsils were chronically quite large. I saw her first on February 25th, 1888. She complained of pain in the left side of the throat, and the left tonsil was found, on examination, to be completely covered with a whitey-gray membrane, intimately adherent and surrounded by a dark-red ball on the pillars of the fauces. The membrane was quite thin in several places and it terminated in a thin margin. It could not be stripped off, and the removal of a small piece left a bleeding surface. The left cervical glands were slightly enlarged. Temp. slightly sub-normal (97.3°), pulse 120, weak, no appetite. She had been in the city only two days, and thought there was some white deposit on the tonsil before she left home. She was carefully isolated for a few days, as besides the infant there were two other children in the house. Iron with chlorate of potash was given freely, and as much nourishment as possible taken. Temperature rose to normal next day and remained so throughout; pulse continued about 120, and weak with general prostration. No change occurring in the membrane after a few days, a solution of argent. nitr. (ʒss. ad ℥j.) was applied three times a day with a brush. With this application the membrane gradually became thinner. By March 10th the whole surface was still covered with membrane. I next saw her about the 20th of March on her leaving for home. Most of the slough had separated, and had extended down into the tonsil to its base, dividing it into two unequal, wedge-shaped parts, the anterior about half the size of the posterior part. Between these the slough had not yet completely separated; of what remained the superficial was semi-liquid, and the deep shreddy a. d adherent. Nearly one-half of the tonsil had been destroyed. The general health had improved considerably; there was now no pain in the throat.

The term, necrotic tonsillitis, for such cases, is used by Strümpell in his Text Book of Medicine, and is the most appropriate available; they are scarcely severe enough to be called gangrenous, and the term phlegmonous is associated with the idea of a more acute inflammation. There can be no doubt as to the propriety of calling Case 2 one of necrotic tonsillitis, its appearance and course were typical of such a condition. Nor do I think Case 1 can be described as anything else, though the inflammation was here much more acute, separating the slough in a very short time. It, however, bears a strong resemblance to diphtheria, but that it was not a case of that disease I believe for the following reasons: It must be rare for so large a deposit accompanied by such sharp localized inflammation, to remain so circumscribed, the uvula and soft palate were not affected, though in contact with the deposit. I have never seen one run such a course; the cervical glands would almost certainly have been much more seriously involved in so severe a case of diphtheria; no paralytic symptoms followed; there was no evidence of contagion; the appearance of the slough and of the ulcer resulting differed from those of diphtheria. Nevertheless, while all this is true, the fact remains that many cases of diphtheria cannot be diagnosticated from such cases of necrotic tonsillitis, and it becomes

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our imperative duty to exercise as much caution with them, in the way of isolation and treatment, as if we were sure they were cases of that dread disease. It is best to err on the safe side.

ON THE NECESSITY FOR A MODIFICATION OF CERTAIN PHYSIOLOGICAL DOCTRINES REGARDING THE INTERRELATIONS OF NERVE AND MUSCLE.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.*

THE EPILEPTIC PAROXYSM.

With the experiments on the cervical sympathetic and splanchnic nerves before us, how can we say that the anæmia, or rather ischæmia, of the brain, which ushers in the epileptic seizure, is due to "excessive action of the spinal centres," compelling the spasm or contraction of the arterial muscles on which this ischæmia depends? Have we not had proof that the arterioles contract best when their vaso-motor nerves are cut, or are paralyzed, or dead; and if so, are we not bound to hold that not excess but failure of nerve power is the proximate cause of the epileptic paroxysm? And is not the question of such excess or failure of nerve force a most practical one in determining the treatment?

How far in our comparative failure to cure this terrible disease due to our approaching it under the ægis of an erroneous theory—that nerve force here needed to be depressed rather than exalted? It is well for mankind that in this, as in some other instances, our practice has sometimes been directly at variance with the theory of the day. Thus we find Dr. Anstie assuring us that "our anti-spasmodics are stimulants"; and that "alcohol is one of the best remedies possible in the convulsions of teething in children" (*a*).

NO "MORBID" NERVE FORCE.

Spasms and convulsions frequently take place in the very act of dying, and under circumstances in which nerve force ought to be regarded as at a low ebb; as, for example, in uræmic blood poisoning. It is customary in some quarters to attribute these or other spasms to "a morbid irritability" or "a morbid nerve force"; as if the central nervous ganglia were capable of producing two kinds of nerve force, one normal and the other "morbid," and the spurious variety of attaining extraordinary power just in proportion to the complete failure of nerve force proper. A little reflection, I think, will show that this is untenable. Nerve force may be increased or diminished: its condition may be one of excess or of failure, but that it may present a duplicate of itself, and its *alter ego* produce effects, for which nerve force proper is inadequate, and yet is responsible, is surely yielding too much to the exigency of an erroneous theory.

Medical literature presents numerous examples of this appeal to a "morbid nerve action," and it is rather surprising to find such a writer as the late Dr. Anstie referring to "the explosive disturbances of nerve force which give rise to the convulsions of tetanus" as "something quite different in kind" from healthy nerve action (*b*). Now, if a nerve centre be thrown into action otherwise than by the exercise of its normal activity, then it is no longer the nerve centre which is acting, but a power extraneous to itself; a modern Archæus for which scientific medicine ought to have no place. And if tetanus be really due to an explosive activity of the nervous centres which are discharging nerve force with unwonted activity, surely to administer stimulants in such a case ought to be injurious, if not fatal! And yet we find that Dr. W. A. Hammond, of New York, has produced statistics in which "stimulants" stand at the very head of the list of curative agents in tetanus (*c*). Here again the theory of the day is surely out of joint with the clinical facts.

CHLOROFORM AND RELAXATION OF ANÆSTHESIA.

I have been asked how the rigidity, at first, and subsequently the relaxation, of the muscles during anæsthesia are to be accounted for in this theory. The answer is easy. The rigidity is due to the partial paralysis of motor nerve influence, setting the contractile power of the muscle free to act. This occurs at a comparatively early stage of the process. The relaxation which attends complete anæsthesia is due to the loss of contractile power

* Read before the Physiological Section of the Ninth International Medical Congress, held in Washington, September, 1887.

(*a*) Stim. and Narcot., pp. 123, 129.

(*b*) Neural., p. 8.

(*c*) Dis. Nerv. Syst., 4th Ed. p. 541.

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on the part of the muscle, owing to the absence of oxygen in sufficient quantity in the blood; for chloroform tends to prevent the oxygenation of the blood (*a*), and renders it venous in character. In this way the chemical processes on which the generation of contractile force in the muscle depends are retarded. (*b*) Dr. M. Foster states that "blood is not only useless, but injurious, unless it be duly oxygenated." And again, "if venous blood be driven through a muscle the irritability of the muscle is lost even more rapidly than in the entire absence of blood" (*c*). This, I think, will be accepted as a satisfactory explanation, in strict accord with physiological facts. The relaxation, however, is not so great but that faradization of the muscle will induce a further degree of contraction; showing that the contractile energy of the muscle, though weakened, is not lost. That the contractile power of the muscle is thus lowered offers a bar to the prolonged or complete administration of chloroform during parturition, for obvious reasons.

The mode in which anæsthetics induce arterial contraction, as explained by Dr. Henry M. Lyman, may be quoted as follows:—"Chloroform acting through the blood upon the nervous apparatus in the walls of the vessels, tends to paralyze the sensory endings of the nervous fibrils. This means a diminution of the normal impulses, which should continually reach the central intraparietal ganglia," in consequence of which "the motor cells no longer experience the inhibitory influence which they should receive from the periphery of their territory, and a liberation of a motor impulse excites muscular contraction, and we have vascular spasm." etc., as the result (*d*). This, of course, is purely hypothetical. The motor nerve fibrils in the muscular bands are ignored altogether, while a purely imaginary "inhibitory" system is invoked to meet the exigency of the occasion. How much better to hold that the motor nerve fibrils also are more or less paralyzed, and the arterial muscle directly set free to contract; thus dispensing with the inhibitory apparatus altogether.

THE NERVE-MUSCLE PREPARATION.

It is impossible here to enter on a critical analysis of the experiments on nerve and muscle, which a careful examination will show to be wholly consistent with the views here advocated. When in a nerve-muscle preparation, the muscle is made to contract by applying to the nerve trunk the shock of electricity, the corrosion of a chemical agent as a quick stroke, what is there to show that the effect on the nerve is not to cause a temporary cessation of nerve influence, rather than the production of a stimulus? There is really nothing, and the character of the impulse is merely a matter of inference. Even in what is called the rheoscopic frog, where contraction in one muscle imparts an influence whereby another muscle is made to contract, the molecular or electrical wave may as well be paralyzing as stimulating.

THIS THEORY NOT NEW.

In hastening to conclude, let me state that, whether this theory of the antagonism of nerve and muscle be true or false, I am not entitled to the praise—or blame—of originating it. It was broached so long ago as 1832 by Dr. West, an English physician, and is said to have met with some countenance from Sir Charles Bell. Dr. C. B. Radcliffe, F.R.S., in his work on "Epilepsy, Paralysis and Pain" (p. 95), has warmly adopted the views of Dr. West, and offers some strong evidence in support of the proposition, that "there is reason to believe that ordinary muscular contraction is associated with a deprivation of nervous influence, and not with a contrary state of things." I have here endeavored to support the same thesis, but with evidence drawn from other sources.

(To be continued.)

(*a*) Ringer's Ther., p. 286.
(*b*) Lyman's Anæsthetics, p. 28; Bryant's Surgery, Amer. Ed., p. 318.
(*c*) Phys., pp. 883, 126. (*d*) Æsthesia, etc., p. 27.

THE ONTARIO MEDICAL LIBRARY ASSOCIATION.

Aim.—This Association has been formed to provide a Reference Medical Library for the use of the profession throughout the Province. All engaged in original investigation or desirous of making contributions to medical literature, must have felt in the past the pressing need that existed for such a collection of books, which as occasion arose they could consult. Valuable libraries are frequently broken up under the hammer of the auctioneer, which should find a fitting resting place upon the shelves of this Institution, and not only confer a benefit upon

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the profession at large, but serve as a lasting memorial to the physicians who laboriously collect them at great expense.

Organization.—By the concerted action of several bodies representing the profession in Ontario—*i.e.*, the Council of the College of Physicians and Surgeons, the Ontario Medical Association, and the Toronto Medical Society—a committee was appointed in 1887, whose members have secured incorporation under the above title, in compliance with the statute regulating library associations. This provisional board has elected interim officers, and is engaged in the preparation of a constitution and by-laws, which will be submitted to the first annual meeting.

Financial Position.—Stock-books having been opened, a canvass of the local profession was made, and upwards of $3,000 have so far been secured. The shares are placed at $5 each. The nominal capital is $10,000, all of which it is hoped will shortly be subscribed for.

Location.—The Council of the College of Physicians and Surgeons has shown its cordial and practical sympathy with the objects of the Association in placing at its disposal, at a nominal rent, a large and well-lighted room situated in its magnificent and commodious building, recently erected at the corner of Bay and Richmond Sts., Toronto. This room is on the first floor of the building, adjacent to the elevator, and hence easy of access at all times. It has been provided with shelving, also, and is steam-heated.

Annual Meeting.—The first annual meeting of shareholders will be held on Wednesday, the 13th of June, at five o'clock in the afternoon, in the library of the Normal School, during the session of the Ontario Medical Association, so as to give every member of the same an opportunity to be present.

Opening.—It is hoped that arrangements will be so far completed, that the Library and Reading Room may be opened by the 1st of July, with a full list of the best medical journals upon the tables and more than 1,000 volumes upon the shelves. These latter will include complete series of the leading journals for the past fifteen years.

Most Pressing Needs.—Donations of books, journals, reprints, pamphlets, etc., in fact of everything bearing upon or treating of medical science are required, and will be doubly valuable if sent in at once. No publication, however small or seemingly unimportant, will come amiss, as they may be used in completing sets, or for the exchange list. Probably every physician in Ontario has some books or journals which he can easily spare to aid in making this library complete. The approaching meeting of the Provincial Medical Association will bring many to the city. It will greatly aid the committee if each physician bring with him whatever he can spare for the library. Donations of books should be directed to the Curator at 259 Simcoe St., Toronto, and he will be very glad to send to any part of the city for parcels of which he may be notified by post-card.

The provisional Board of Trustees is composed as follows:—President, Dr. Graham; Vice-Presidents, Drs. Arnot, Burns, and Henderson; Sec., Dr. Wishart; Curator, Dr. N. A. Powell; Treas., Dr. McPhedran; Librarian, Dr. Pyne; Members, Drs. J. W. Rosebrugh, Mullin, and Nevitt; to any of whom subscriptions or donations of books may be sent.

D. J. GIBB WISHART, *Sec.*

Toronto, May 24th, 1888.

Correspondence

OUR PHILADELPHIA LETTER.

PHILADELPHIA, 12th April, 1888.

AN AFTERNOON AT THE PHILADELPHIA ORTHOPŒDIC HOSPITAL AND INFIRMARY FOR NERVOUS DISEASES.

This institution was organized in 1867 as an Orthopœdic Hospital, and in 1872 an infirmary for nervous diseases was added with Dr. S. Weir Mitchell as attending physician. On Mondays, Wednesdays and Fridays the physicians, Drs. S. Weir Mitchell, Wharton Sinclair, and William Osler hold clinics for nervous diseases, and on alternate days Drs. Thos. G. Martin, Wm. Hunt, and H. E. Goodman see the orthopædic cases. The care and system with which the notes have been recorded, particularly of nervous cases, is to be commended, and might be followed with advantage at other institutions. Thus there are separate case books for epilepsy, hemiplegia, chorea, infantile paralysis, neuralgia, etc. An illustration of the value of thus carefully recording observations, is shown by the fact that Dr. Osler, in his

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lecture on chorea, delivered at the hospital last spring, was able to analyze, from the books, nearly five hundred cases. As far as possible the symptoms are entered in regular order following a printed card of instructions, which is always on the table.

It is in the out-patient department that much of Dr. Mitchell's best work has been done. In the wards are a large number of hysterical women on the "rest treatment," or as the French and Germans call it "The Weir Mitchell Cure."

Dr. Burr, the house-surgeon, has kindly given me a detailed account of this "rest treatment" as here carried out.

The patient has absolute rest in bed; does not lift her head from the pillow, is fed by an attendant. Her diet is milk: on the first day she receives three ounces every two hours; this is increased an ounce each dose until she gets eight ounces every two hours, or eight ounces eight times a day. The first dose is given at 7 a.m., and the last at 9 p.m After a variable time she is allowed bread, and then eggs and fish. Usually for a month or six weeks at least, milk only is given. Visitors are not permitted; no letters or papers are allowed, and she is permitted neither to write nor read. The nurse may read to her a short time daily. Massage is given for half an hour, either in the morning or both in the morning and afternoon. Subsequently the rubbing may be extended to an hour. Faradization to muscles and spine once a day at first, afterwards twice. The class of cases treated in this manner is represented by the following examples. Thus in bed iv. of the women's medical ward is M. S. aged thirty-seven, admitted two days ago, who has had for thirteen months, symptoms of hysteria following an accident She has had convulsions, etc., was conscious but could not speak; had paralysis of her right arm and leg for twenty-four hours, which disappeared suddenly. Once she was palsied in left arm alone. There is great pain in the back and neck; tender spots over the spine, and there are areas of anæsthesia. She could not walk for eight months. Externally she is a picture of health. These cases seem not uncommon; there are two other patients in the house with hysterical symptoms following injury. Page calls the condition traumatic neurasthenia. The results of this apparently simple method, are well known, but one or two cases may be given in illustration. A Miss B. who has been ill ten years, and on her back eighteen months, unable to walk. is now, at the end of three months treatment, able to walk around and come down stairs. A Miss S. from Canada, who has been ill for six years with most aggravated symptoms of hysteria, and whose ovaries and tubes were removed without any benefit, two years ago, seems now quite well after ten weeks treatment. Dr. Burr states that during the past year, very few cases have resisted this method. no matter how prolonged and obstinate.

In illustration of the remarkable results of what might be called a combination of faith healing and the "rest treatment," was the case of Miss G. admitted a few months ago under the care of Dr. Osler. She had been profoundly hysterical for at least fourteen years, and during this time had not walked. With every possible hysterical manifestation, from hemi-anæsthesia to retention of urine, she plagued her doctors and wore out her relations. On admission her legs were somewhat wasted, in a condition of extention; the reflexes slightly increased but with normal electrical reaction. Daily massage, electricity, and the stimulating influence of hospital and hope, put this paralytic on her feet within a month, and she walked out of the hospital within twelve weeks. She has had no return of her paralysis, but has since had hysterical retention of urine.

In the Children's Ward were several cases of great interest. Among others may be mentioned the case of a child of three years, with congenital bi-lateral spastic hemiplegia, the result, in all probability, of selerosis of the cortex cerebri. In the Boys' Ward up stairs, is a similar case, admitted the previous day. In this instance the child, also aged three, was bright and intelligent. They usually appear to be either imbecile or idiotic. Dr. Burr tells me that a considerable number of cases of spastic paralysis in children come to the hospital, some hemiplegia, others paraplegia. Injuries at birth, cerebral hemorrhage, and when older, an encephalitis, analogous apparently to the uryelitis of the anterior horns which produces the special palsies of infants, are the chief causes of this spastic condition. Unfortunately, it is not so amenable to treatment as the spinal disease.

In the Woman's Ward there was an interesting case of unilateral wrist-drop in a woman aged forty, the result of neuritis, which illustrates what

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may be done in this condition by systematic treatment. She was from near Richmond, Quebec, and had not had the use of her right hand since last May. The attack had come on with great pain, and Dr. Osler, under whose care she is, inclines to attribute it to a rheumatic neuritis as she shews no sign of lead poisoning, and had not received an injury. She had massage twice daily, electricity once a day, no internal medication. After three weeks treatment she began to improve, and can now extend the wrist and the hand almost as well as the other one.

In the Men's Ward, the cases are chiefly spinal; thus bed I. spastic paralysis from spinal injury. Bed II. amyotrophic lateral sclerosis, the condition in which wasting of the muscles, with spasms, and the characteristic symptoms. Bed IV. a patient with transvesre myelitis and spastic paraplegia. Rest in bed for a week greatly relieved the pains, and diminished to a remarkable extent the exaggerated reflexes, the ankle-clonus having disappeared.

A remarkable instance of the terminal stage of pseudo-hypertrophic muscular paralysis was seen in the Boys' Ward, in a lad of eleven, who had lost power completely in the legs and thighs from atrophy, following the pseudo-hypertrophy, while the arms were still large, and the cheeks very prominent from involvement of the masseters.

One of the most interesting features of the hospital is the laboratory, which Dr. Mitchell has equipped for the special purpose of studying disorganized muscle and nerve functions. He is at present engaged in a research on the ankle clonus. He has already published several papers on the physiological and pathological significance of the knee-joint.

INGERSOLL OLMSTED, M.B.

OUR NEW YORK LETTER.

From our Own Correspondent

NEW YORK, May 24th, 1888.

The treatment of fractures of lower end of the humerus, as treated largely in New York, may not prove uninteresting to many of your readers. Chambers Street Hospital is situated in the busiest part of the city, and is intended for the treatment of all kinds of accidents, fractures, wounds, and, in fact, all sorts of emergency cases. They treat from 150 to 300 cases a day, which is probably more than that of any other three or four hospitals in the city, *i. e.*, as regards this class of cases. Their method of treating fractures of the humerus about the elbow-joint—whether the fracture be that of either of the condyles, epicondyles, transverse, T-shaped, or oblique fracture, and involving the elbow-joint—is about as follows, as detailed by Dr. Powers, the Resident Surgeon, in charge, at the Academy of Medicine, the other evening:—In all these cases the treatment was substantially the same. A diagnosis is first made, if possible, without the aid of an anæsthetic, but if it cannot be made positively, or if there be much pain, then the patient is etherized, and the diagnosis made. The forearm is then flexed to about a right angle, and midway between pronation and supination, cotton is wrapped about the arm and forearm, and a good deal about the elbow, a flannel roller loosely applied, and over this the plaster of Paris, by means of a roller, the dressing extending from a little above the wrist to the upper part of the humerus. The dressing should be stronger, thicker posteriorly than anteriorly, on account of the weight. After the hardening, which will be in a few minutes, it is put in a sling. If there be any error at all in applying the plaster it should be on the side of being too loose, rather than tight. If too tight, as manifested by the pain and appearance of the hand, it will of course have to be taken off and re-applied. This dressing is left on ten days, when it is taken off to see that everything is all right, and if so and the fragment in place, the same kind of dressing is re applied and again removed in eighteen days, or the twenty-eighth day after the fracture. By this time the fracture will have firmly united. The patient is now instructed to poultice the elbow frequently—the oftener the better. The arm is to be used actively—not passively. In children the opposite arm is confined, at first at nights, and later altogether in order to give the other elbow more to do. The joint functions are soon established up to the normal standard. Dr. Powers reported 50 cases, of which 33 recovered with a perfect result—absolutely no deformity or impairment of motion. In seven extension was to about 170°, and with a prospect of soon reaching the normal with no deformity In four a very slight deformity of external condyle, but good motions. In one, anchylosis—the frac-

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ture having been a comminuted one. One ununited, the patient having been in an almost chronic state of intoxication from time of injury until eleven months after. One, a gun-stock deformity. In the others the dressing had been so recently taken off that a result could not be stated, but a good result was anticipated. So that out of fifty cases, there were but three bad recoveries. I saw ten of the patients recovered, in all of whom the joint functions were perfect, a very slight deformity in external condyle being present in one. By this method of treatment the fragment is kept in place, the joint is kept at absolute rest, passive motion is done away with, and as Dr. Powers showed, a good result was obtained in 90% or over. Anchylosis is to be expected rather where the joint is not kept absolutely at rest and passive motion employed, than when absolute rest followed by free voluntary motion is employed. Dr. Alles, of Philadelphia, treats these fractures in the same way with the exception that he puts them up with the forearm in extension; the treatment otherwise the same.

This afternoon I saw a case of leprosy at Charity Hospital. The patient, a man about 35, is not isolated from the other patients, but mingles more or less with them. For the past twenty years there has been at least one case of leprosy in this hospital, but no other cases have developed as a result of contagion.

Acute gonorrhœa is treated at the Polyclinic, by irrigating the urethra with a solution of permangate of potash, using a drachm of a 5% solution of potash permangate in a quart of warm water. This is done twice a day and good results are reported to be the rule.

CANUCK.

To the Editor of the CANADA LANCET.

SIR,—Now that we hear so much of "Combines" might it be asked of you: "Is there any such thing as a 'Surgical Instrument Combine'?" and if not, how is it, that such exorbitant prices are forced from us, for the most trifling surgical instrument, or appliance, or dressing?

The outrageous prices coolly demanded necessitates a purse as long as the moral law. Many instruments, such as forceps, used by skilled mechanics, can be bought for less than half what has to be paid for them, if required by a physician. Trifling things, as antiseptic gauze, cotton wool, corrosive sublimate tablets, india-rubber tube, catgut, etc., are charged for at about 500 times their intrinsic value. A piece of gauze five yards long, soaked in five cents' worth of corrosive sublimate, is put up and $1.50 is coolly demanded, and the tariff is blamed for it. The same way in instruments; those of the most inferior quality, tawdry, nickel-plated rubbish, is shoved off, on us, at prices large enough to stagger a plumber.

The finest quality of instruments are not to be found in the country, for sale; wretched pot-metal, nickelled imitations are all our choice, and for such as are presented to us, prices, far exceeding those of the finest English, French and German make, are forced, by our necessities, from us.

While the fact is, that the tariff is to blame for about 40 per cent. of the price, still this is merely used as the erdinary pretext for exorbitant profits being demanded. High as the New York price are, it will pay any one, even from this extreme country, to go there and make his selection, if his purchases are about $50 worth, and trust to the capacity of his pockets to relieve him from the privileges of an importer. That it would be a good thing to have the duty removed from all instruments not made in Canada, we all admit; but a better thing far would be the welcome visit of some first-class English, German or French manufacturer, who would be welcomed like the prophet who went out and blessed Israel. In neither price or quality will we ever have a change, until the profession makes a plain, vigorous protest against the outrageous charges demanded of them, which I intend will be forth coming at the next meeting of our County Association. Yours,

HURONIAN.

Editor CANADA LANCET.

SIR,—Shortly after your next issue, the meeting of the Ontario Medical Association will take place, and with your permission I would like to draw the attention of that body to the necessity of giving a pronounced opinion upon the subject of a Provincial Inebriate Asylum, with the hope that a committee of its members will be appointed to confer with the Government and City Council, looking towards the establishment of this much needed institution.

Many gentlemen, both in the city and the coun-

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try, have been for years prominent in agitating the subject, and every physician has experienced the inadequacy of present means to cope with this particular class of patients.

No doubt many of these gentlemen will be present at the meeting on the 13th and 14th, from whom the committee I suggest might be named, to advise with the authorities in all things touching this subject.

From village, town and city throughout the length of the Province, comes the urgent appeal for a suitable place for the proper care and treatment of those who are contracting or have contracted the habit of inebriety. On the one hand, the family and friends are unable to control, by their individual exertions, the patient, when the desire for over-indulgence seizes him, and the latter generally has his or her own way for weeks, there being no remedy applicable, but to let them exhaust themselves; on the other hand, there is no coercive measure, short of the common jail, and all the associations and contaminations with those who are morally and physically vile and filthy. A thousand times in this fair city have the family and friends preferred the alternative of letting the patient drink himself or herself to death, rather than adopt the alternative of the common jail, and are doing it to-day,—rather than they should consort or familiarize with the average inmate undergoing restraint in the jail. So, between the two, there is no happy medium.

Inebriety to-day is not received in the same light it was a quarter of a century ago, it is verily a disease, and we owe it to the public to educate them to this view. As other diseases, it may be hereditary or acquired, and as such should have the same Christian charity and paternal care, kindness and treatment extended towards it.

The rules regulating hospitals for general diseases are not applicable and will not meet the requirements of this form of disease; neither will asylums for the insane,—though, in many instances, those inebriates have stages when they are as irresponsible as any inmate of an asylum for insane.

Being, therefore, brought face to face with these facts, and the total inadequacy of any means in our power to successfully treat these cases—being cognizant fully of the great number who to-day and for years have been wrecking themselves, their families and estates, we will be neglectful of our duty to our homes if we make no effort to raise this reproach from out our Province.

No way appears but the erection of an Inebriate Home, combining such of the rules of both hospital and asylum as will meet the wants of these cases. Special rules to regulate it, and commitment within its walls to be as carefully guarded as those of an insane asylum. Of the many plans in various places adopted, I know of none which, to my mind, embodies a true regard for the welfare of the patient and the welfare of the community.

Compulsory incarceration should be in the hands of the county judge and two physicians. The period of time for residence, compulsory or otherwise, to be decided by a board of advisors composed of medical men, county judge, and city and provincial represenfatives, who will pass in private review, once every month, every patient, limiting or lengthening their term to the best of their judgment. In this manner the so-called "liberty of the subject" would be safely guarded, and abuses never be able to creep in. Upon this board of advisors the Ontario Medical Association might undertake to appoint the medical members for certain terms of years; the others, as representatives of the city and province, might be named by these bodies respectively.

Dr. Clark, in his excellent article on this subject, points out that an Inebriate Home would likely be self-supporting, so that question need not be discussed, as he is a good authority; but, apart from a building, only small grants would be required from the city and the province, to be supplemented by the contributions of those having means to pay for their attendance.

These are a few details inserted at the present time, with the hope that the subject will be put into practical shape at the meeting of the Association soon to be held.

I am, yours truly,

J. E. WHITE.

Selected Articles.

CASES TREATED WITH IPECACUANHA SPRAY AT THE WESTMINSTER HOSPITAL.

BY WILLIAM MURRELL, M.D., F.R.C.P.

The Ipecacuanha Spray was originally introduced as a remedy for chronic bronchitis and other diseases of the throat and respiratory organs in consequence of the reputed success attending the use of a nostrum, both in London and Paris, by an irregular practitioner. It was difficult to obtain

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any clue to the composition of the secret remedy, as apparently the proprietor varied the constituents from time to time, in order to puzzle the analysts and escape detection. Some patients said that it was a clear colorless fluid like water, whilst others were confident that it was yellow, or red, or even blue. Some thought it was tasteless, whilst others declared they recognized the not unfamiliar flavor of dry sherry. They all agreed, however, that it was used in the form of a spray, and that its effects were little short of marvellous, a few inhalations affording prompt relief, both to the cough and shortness of breath. It always loosened the phlegm, and frequently gave rise to copious watery expectoration. It obviously belonged to the class of medicinal agents which we call expectorants, and as there was no reason to suppose that it was a rare or unknown drug, the sphere of investigation was considerably narrowed, for many remedies were obviously unsuited for administration by this particular method. A number of preliminary trials were made which speedily demonstrated that even if the speeific were not ipecacuanha wine, that very useful drug entered largely into its composition, and that locally applied in the form of a spray it was capable of affording relief to congested and irritated bronchial mucous membranes. Sometimes the ipecacuanha wine, pure or diluted with an equal quantity of water, was used with a small steam vaporiser, but more commonly the ordinary hand-ball spray apparatus, such as is employed for the production of local anæsthesia, was preferred. A solution in spirit made of the same strength as the wine was found equally efficacious. After a few visits the patient was usually taught how to use the apparatus himself.

The following may be regarded as typical of a number of cases which have been under treatment at the Westminster Hospital during the last six months :—

I. Case (reported by Mr. E Lucas Hughes, clinical assistant) showing the value of the ipecacuanha spray in bronchial catarrh :—

David J., æt. 53, a cigar maker by trade, has had a cough in the the winter for twelve years or more. There is not much dust in his work, and he is not exposed to wet or cold, but he has travelled a good deal, and has known what it is to rough it He has been to America fourteen times, to Australia, Sandwich Islands, and many other places. He is fond of going about, and as he is a good hand at his work, and can always get employment, he sees no reason why he should always stay in one place. The cough is troublesome, but is not paroxysmal. There are no bad attacks of cough, but there is a good deal of hacking, and this keeps him awake at night. There is very little expectoration. certainly not enough to give him any trouble. He has had no hæmoptysis, and has not lost flesh. On examining the chest the percussion note is found to be normal. Small râles are detected at the left apex in front, and at the right base posteriorly. The patient was given 15 cc. of ipecacuanha wine, with an equal quantity of water, by a steam spray apparatus, and this was repeated on three successive days, the dose being gradually increased to 30 cc. On the fourth day the hand-ball spray was used, and at the expiration of the week the patient reported that his cough had entirely left him, and that he was practically well. On examining the chest it was found that the rhonchus had disappeared.

II. Case of chronic bronchitis and winter cough (reported by Mr. L. Hughes), illustrating strikingly the benefit which may frequently be obtained by the ipecacuanha spray :—

Francis P., æt. 58, has suffered from winter cough for the last twenty-five years. He gets rid of it for only a short time in the summer, and for the last thirteen years it has been not a winter cough, but a winter and summer cough as well. This year he has had it badly since the beginning of December. It comes on in fits, which often last ten minutes. He always has two or three bad bouts of it in the daytime, and one or two at night. If they come on when he is out he has to cling to the railings, or hang on to anything that may be handy. The expectoration is always thick, and it may be yellow or white, sometimes streaked with black, especially in the winter. He has never brought up any blood, with the exception of a mouthful now and then. He gets short of breath, especially on exertion, or after a bad fit of cough. His occupation is an unfavourable one, for he is engaged in heaving sacks of coal at the gas works. He gets as hot as any man can get, he says, and then goes out or stands in a draught to "cool down a bit." This he thinks has tried his constitution. On examining the chest it was found that there was a little general emphysema, with sibilant rhonchus over the right front and back. Immediately after the patient had been examined he was made to inhale a spray of equal parts of ipecacuanha wine and water. The Richardson's apparatus was employed, and the quantity of the diluted wine used was 5 cc. The chest was then at once re-examined, and it was found that the sibilant rhonchus had entirely disappeared from the front, and had almost gone from the back. After inhaling 10 cc. more of the diluted wine the patient expectorated freely. At the expiration of five minutes, during which 35 cc. had been sprayed, the abnormal signs had entirely disappeared from the chest. The patient came the next day, and had another inhalation of 40 cc. This was repeated on six consecutive days, when the patient reported that he was quite well. The cough had left him, there was no expectoration, the breathing was easier, and his appetite had returned. On examing the chest no rhonchus was to be found.

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III. The next is a fair specimen of an obstinate case of winter cough treated by the same method:—

Mary A., æt. 32, came to the hospital on January 29th, with a winter cough of many years' standing. She reports that it is worse this year than it has ever been before. It is paroxysmal, the slightest exertion, even talking, bringing on an attack. The attacks vary very much in duration, but rarely last less than ten minutes. In the twenty-four hours she expectorates quite a teacupful of thick yellow phlegm. She is extremely short of breath, is quite unable to do her housework, and at night cannot sleep unless propped up with three pillows and a bolster. The breathing is worse at night, and fog increases all her troubles. She has been hoarse for weeks, and her voice goes if she attempts to talk. Her chest is very sore from coughing, and she aches all over. She is emphysematous, and the breath sounds are obscured by cooing râles. On February 3rd the patient who had an inhalation on five consecutive days, said she was better in every way. The breathing was easier, the cough was not so violent, her chest was not so sore, the expectoration was less, and the hoarseness had nearly gone. Three days later, the inhalations having been continued meanwhile, she reported that she was better than she had been all winter. The improvement in her breathing is so great, she can now do with only one pillow instead of three. She sleeps better, and there has been great improvement in the cough, which, instead of being aggravated at bedtime, is easier. Expectoration has almost ceased. On the 10th, having had no inhalation for three days, she complained that there was shortness of breath. On the 12th, after two more inhalations, it was better. On the 17th the note was:—"Has had but one inhalation since last date. The cough has now almost left her, and she often goes twelve hours without a fit. Her breathing is so much better that she does her own housework, and is not propped up at night." She was discharged after ten inhalations and nineteen days' treatment. A month later she called and said that her breathing was all right, and that with the exception of a slight hacking cough, she had been perfectly well since her discharge.

IV. The following is a case of fibroid phthisis in which the ipecacuanha spray afforded prompt relief to all the prominent symptoms:—

Fred. L., a mason, æt. 20, came to the hospital on November 20th and gave the following history. He had a cough last winter for the first time, it lasted from Christmas to June, but he was free from it during the rest of the summer. This year he has had it seven weeks. It comes on in paroxysms, four or five in the day, each lasting from five to ten minutes. The attacks are so severe that he has often to stop in the street and hold on to the railings. He is sick after a violent attack, and this has greatly reduced his strength. The expectoration is watery, not thick, and there is usually a pint or more in the twenty-four hours. He spat blood several times last winter, but only in small quantities. The loss of flesh has been considerable and he weighs two stone less than he did twelve months ago. He is much troubled with shortness of breath, and has some difficulty in getting up stairs. He lives only a mile from the hospital, but it is farther than he can walk, and he has to take the omnibus. His voice is getting weaker, and he is so ill that he has done no work, except an odd job here and there, for over a month. On examining the chest, the signs of a dry cavity were exhibited at the apex of the right lung. He was given an inhalation of ipecacuanha wine on three consecutive days, and at his fourth visit he said that the cough was easier than it had been for many months. The sickness in the morning had left him, and he could walk with comparatively little difficulty, and even get up stairs. He continued to improve under this treatment, although somewhat slowly, and after the sixth inhalation his chest was painted with iodine liniment over the site of the cavity. From this time he progressed much more rapidly, and at the expiration of a fortnight he was discharged, after ten inhalations, comparatively well. No other treatment was adopted.

V. The following case is of interest as it serves to illustrate the beneficial effect of the ipecacuanha spray in loss of voice, due to congestion of the vocal cords:—

George E., æt. 51, an engine inspector on one of the railways, came to the hospital, on November 27, complaining of hoarseness. He had been quite well, he said, until about three weeks before, when he had got wet through and had caught a bad cold. His voice had been gradually getting weaker, and for some days he had been unable to speak above a whisper. He kept at his work, but could not talk much, and had, as far as possible, to convey his meaning by grunts and signs. He had never been ill before, and hardly knew what it was to have a cough. He was a big, fine fellow, but looked the picture of misery from his inability to speak. His chest was carefully examined, but nothing wrong could be detected. On laryngoscopical examination the vocal chords were found to be swollen and congested. He was at once given an inhalation of ipecacuanha wine—two drachms and a half—by means of a steam spray apparatus, and immediately his voice became clearer and he could speak without much effort. He was unable to attend again until December 8th, when his voice was worse and he could hardly speak at all. It appears that he had been at a smoking concert the night before and could not resist the temptation to join in the choruses. What between the smoke and the harmony he was almost voiceless. On examination it was found that the left ventricular

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bands were greatly swollen. He was given another inhalation of ipecacuanha wine, four drachms being used this time, and at once, as on the previous occasion, his voice became clearer. The next day he came again, and after another inhalation a still further improvement was noticed. He was given no medicine with the exception of a purgative pill. On the 11th he had his third inhalation, four drachms again, and on leaving he declared that his voice was nearly restored. He took great pains to inhale thoroughly, and probably much of the ipecacuanha was absorbed. The next day he was still better, but reported that the spray had made him sick. He had another inhalation and did not return till the 22nd, when he came to say that he was perfectly well, and needed no further treatment. The vocal cords were examined and found to be healthy. He was discharged cured after five inhalations.

VI. In the next case hoarseness depending on congestion and ulceration of the chords was relieved by a course of the ipecacuanha spray :—

Emma V., æt. 30, single, a children's nurse, came under observation on December 4th. She stated that she had had a cough every winter since she was a girl at school. It troubled her most at night, and frequently disturbed her rest. It usually came on in fits, and she could obtain no relief until she had expectorated a quantity of thick phlegm. She had been more or less short of breath for three years, and had often experienced considerable difficulty in getting upstairs. There was a little loss of flesh in the winter but nothing very much. She had never had sweating at night, and there was no family history of phthisis. Her geneaal symptoms troubled her very little, but she was much alarmed at losing her voice a fortnight ago. She speaks now in a guttural tone and evidently with considerable discomfort and distress. She attributes her symptoms partly to having to get out of bed at night to attend to the children, and partly to the fact that she has to sing to them, and also in a choir. On examining her chest she was found to have a little moist rhonchus at both bases. On laryngoscopical examination it was found that there was ulceration of the right chord, with congestion of both. She was given an inhalation of ipecacuanha wine, by means of the steam inhaler, and an important improvement in the voice was at once apparent. The improvement, however, was only temporary, and the next day she was as bad as ever. She had eleven inhalations before there was any improvement. Sometimes she had the spray from a Richardson's apparatus and sometimes from the Siegle's, but she preferred the latter. She was kept under treatment until December 29th, by which time her voice was perfectly clear and all her symptoms had disappeared. At her last visit the chest was examined and was found to be free from rhonchus, whilst the laryngoscope showed that the ulceration of the vocal chord had disappeared.

Remarks.—Most successful results are obtained from the employment of the ipecacuanha spray in cases of chronic bronchitis and bronchial catarrh. In fibroid phthisis there is often a marked improvement, even when no constitutional treatment is adopted. A single inhalation will sometimes restore the voice in case of hoarseness due to congestion of the vocal chords. It is a matter of little importance whether the spray be given with a handball spray apparatus or with a small steam vaporisor. In either case the spray must be warm and the patient should not go out for some minutes after inhaling. Care should be taken to see that the spray really enters the chest and is not stopped by the arching of the tongue against the wall of the mouth. The best results are obtained by using the spray for about ten minutes three or four times a day. In the majority of cases of winter cough relief will be obtained in ten days.—*Medical Press and Cirrular.*

THE TREATMENT OF PUERPERAL SEPTICÆMIA AT THE PHILADELPHIA LYING-IN-CHARITY—WITH REMARKS.

The treatment is based upon the principle that puerperal septicæmia is caused by the entrance into the system of an infectious material through lesions in the genital passages. This infectious material is believed to be certain micro-organisms, which produce their effects either directly by their action on the fluids and tissues of the body, or indirectly through certain products of their activity, called ptomaines, or both.

The prime object of local treatment in puerperal septicæmia is to render and maintain the utero-vaginal canal in an aseptic condition. It must be recognized, however, that when once the germs are within the tissues or vessels of the puerpera, they are beyond the influence of local medication. Hence the result to be hoped from local anti epsis is, that it will limit the dose of poison to that which has been absorbed before treatment was instituted. The tissues and white blood cells must be left to battle with those germs which are already within the tissues, assisted by constitutional medication. Therefore the results from local treatment are most brilliant in cases of putrid infection, where the fever is due rather to the absorption of the products of decomposition of the lochia, or of fragments of retained placenta or membranes, than to the action of germs on the tissues of the patient.

Other objects to be gained by local treatment are to favor the healing of wounds, and promote the comfort of the patient.

Neither septic abscesses of the pelvic cellular tissue nor pyæmic abscesses have developed in the Charity's cases (within three years), nor has phleg-

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masia dolens been observed. In two cases gonorrhœal salpingitis has developed *in puerperio*. In one—an out-patient—peritonitis succeeded, laparotomy was done by Dr. Longaker, the diseased tube removed, and irrigation practised. The patient was *in extremis* before the operation, and died shortly afterward. In one case an old pyosalpinx induced purulent peritonitis and death, without operation. These cases are mentioned to show the variety of conditions usually classed as "puerperal fever."

Where a diagnosis of puerperal sepsis is made, local irrigation is instituted at once, irrespective of the odor of the lochia. Where the temperature does not exceed 102° F., vaginal irrigation alone is practised. This is for the reason that infection takes place in the majority of cases through lesions of the vagina or vulva, and only exceptionally from within the uterus. Corrosive sublimate solution (1-2000 to 1-4000) is used. The irrigations are repeated at intervals of three or four hours by the nurse. Where the fever does not subside in from six to eight hours, or increases, the uterus is washed out by the physician himself. This necessitates a digital examination, when bits of placenta or membrane, if present, are removed by the finger. The dull curette has been used to some extent, both for diagnosis and the removal of foreign material from the uterine cavity, and is regarded with favor. But no mere instrument can give the information derived through the sentient examining finger; nor will any inflict so little traumatism in the removal of foreign bodies. The uterine cavity is examined only after vaginal irrigation, lest having previously escaped, it be infected by the septic vaginal discharges carried on the finger. The modified Bozeman canula is used. A hundred grain iodoform pencil is left in the uterus. This slowly disintegrates and is present in the discharges for two or three days. After this thorough disinfection, the fever, especially if due to putrid absorptions, usually disappears. Otherwise vaginal irrigation is continued as before; and should new chills occur, or high temperature continue (above 103° or 104° F.), the uterus is again washed out and the iodoform pencil left in as before. The woman need not be disturbed during the manipulations. The vaginal irrigation is discharged in a bed-pan, then the canula is introduced within the uterus along the finger, as a guide. All air is previously expelled and the stream allowed to run during the introduction. Irrigation is continued until the stream returns clear—from one to three pints are necessary. After removing the canula the uterus is grasped and made to expel all fluid, and the perineum slightly retracted to insure its discharge from the vagina. Dr. Wilson sometimes irrigates through a speculum. No case of serious mercurial absorption has occurred. Salivation was induced in one case. No case of iodoform poisoning has been seen. Not infrequently after the intra-uterine douche, and quite commonly after the removal of more or less putrid material from the uterus, a chill and rise of temperature results, which soon subsides. This is partly due to nervous shock and partly to the temporarily increased absorption of poisonous material, caused by abrasions produced during the manipulations of the finger, curette, or irrigator.

In those unfortunate cases in which fever continues in spite of treatment, it becomes a question, after several days, whether irrigation is of further value. Fetor of the lochia is a constant indication, but it is not apt to be present after the removal of foreign matter and thorough utero-vaginal disinfection. In the presence of marked parametritis, without special indications to the contrary, the vagina alone should be douched.

On one case diphtheritic patches occurred on the fourchette. They were treated by the application of pure carbolic acid, followed by iodoform.

Turpentine stupes, and at times poultices, are used in cases of metritis or peritonitis, with tenderness on pressure, and tympany.

Constitutional treatment, while considered in the majority of cases of secondary importance to local measures, is by no means neglected. Nor is it forgotten that in the cases in which marked invasion of the tissues and vessels by germs has taken place (before local antisepsis could cut off the supply), it is the only means of favoring a successful issue. The indications are to support the strength, combat hyperpyrexia, and meet special complications and symptoms. It is a problem of "the survival of the fittest" between the host and the invading germs.

Proper alimentation is of the highest importance, especially in protracted cases. Milk, given in quantities that can be assimilated, is largely depended upon. In irritable stomach, lime water or whiskey is added Beef tea, nutritious broths, and the various nitrogenous prepared foods are used as adjuvants, or where milk disagrees. Quinine in divided doses, not exceeding fifteen grains daily, is believed to conserve the strength. Whiskey is given as indicated. Most cases at all protracted, require it early, and can take it in large amounts. The first sound of the heart is the most reliable criterion by which to be guided in its administration. Brandy is at times substituted, and champagne is used where troublesome and otherwise uncontrollable nausea is present. The administration of spirits is considered of great value in combating septic fever.

Hyperpyrexia (approaching 104° F.), unless transient, is met by antipyrin (grs. xv to xx) repeated every hour or second hour, until the temperature falls below 102° F. The pulse is always watched during its administration, and stimulants given if necessary. In two cases, which subse-

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quently recovered, collapse occurred after the administration of two fifteen grain doses of antipyrin at intervals of an hour, the temperature falling to 97° F. Quinine in fractional doses is substituted when the temperature is below 102° F., being used principally for its tonic effect. The cold coil has been used in a few cases.

Opium is largely relied upon to allay restlessness, induce sleep, and relieve pain. Pain is very seldom complained of; tenderness on pressure is usually its greatest manifestation. In the few cases in which peritonitis has been present, turpentine by the mouth and by enema has been used to relieve flatus. The question of opium *versus* saline purgatives is under consideration, but it is by no means considered advisable to prevent an occasional movement of the bowels. For weak heart, while digitalis is used, more is expected from alcohol and alimentation. Ergot is believed to be of use in preventing septic absorption, not only by favoring an empty and contracted uterus when used *post-partum*, but also, perhaps, by its action on the muscular tissue of the utero-vaginal canal and absorbents, in the presence of septic material. Other special complications and symptoms when present, are treated on general therapeutic principles.—Chas. P. Noble, M.D., in *Med. and Surg. Rep.*

THE TREATMENT OF INDOLENT ULCERS BY MULTIPLE INCISIONS.

The following method of treating indolent ulcers was devised by my honoured chief, Dr. A. Harbordt, and I am much indebted to him for his permission to make it more widely known. It has been applied with success for the last seven years in many private cases and in the wards of the hospital, and was described six years ago to the Medical Society of this city. It will be seen that it has claims to be considered a *radical* treatment, that is to say, it tends to remove the course of the morbid condition.

The chief reason of the small inclination to heal which these callous or indolent ulcers show, and of the great tendency to break down again which is observed in their cicatrices, is the defective nutrition, the inadequate blood-supply of the affected tissues. The margins of the ulcer consists of coarse cicatricial fibrous tissue with few blood-vessels, and its floor has an almost tendinous texture such as offers but little encouragement to cell-proliferation and regenerative growth. This fibrous and resistant induration is either a secondary result of the chronic irritation of the ulcer, as in varicose ulceration of the leg, or (as in *Case* II., after necrosis of the skin) the floor of the ulcer is formed of tense non-vascular fascia, incapable of vigorous granulation and defying all the stimulating preparations which might be applied to it. Even Weber's lateral incisions and Nussbaum's circular incision prove powerless in such a case; while transplantation, after the methods of Reverdin and Thiersch, is out of the question. Transplantation for success requires a healthily granulating surface, and here that is absent.

Our method is briefly as follows:—The entire ulcer is divided lengthwise by a deep incision extending far into the healthy tissue. Cross incisions are then made through the callous tissue into the healthy at intervals of about three-quarters of an inch. The incisions must go through not only the skin but through the underlying fascia; the wounds must grape widely. The bleeding, often profuse, must be stopped with tampons; and the whole wound, which it must be owned has rather a slaughter-house look, is done up with iodoform dressings. When after eight to fourteen days the dressing is changed, the difference in appearance is very marked. Healthy granulations are springing up in abundance from the gaping incisions, and soon cover the whole surface, reaching the level of the surrounding skin, from which the growth of the new epidermis is seen to advance rapidly. At this stage of course, when the loss of skin is great, transplantation may be effected and will now be useful.

The multiple incisions must of course be postponed till the ulcer is no longer foul, all necrosed fragments being first removed; this is in order to avoid the risk of septic infection of the deeper parts.

The advantage of the method is obviously that highly-vascular healthy parts are enlisted in the healing process of granulation, and thus not only the wound but also the resulting cicatrix are under more favorable conditions. It might be expected, and facts confirm the expectation, that this cicatrix is far stronger and more resistant than the thin covering which may occasionally be obtained from scanty granulations, after the use perhaps of every means in the surgeon's *armamentarium*, and with great difficulty at that. Such thin cicatrices, of feeble vitality from the outset, give way on the slightest mechanical or chemical irritation—the chafing of clothes, a slight scratch, or an acrid excretion—and the weary "cure" has to be begun all over again.

The method has been found especially valuable in ulcers lying over joints, the cicatrices of which are themselves endangered by continual stretching and movement, and at the same time limit the mobility of the parts involved. These troubles are successfully overcome by our method, as may be seen from the account of *Case* I. below. This was a burn extending over the whole flexor aspect of the arm and forearm, and the treatment by incision had to be carried out in more than one stage; some repetition was necessary, probably because

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the first incisions were not extensive enough. The process of healing was protracted, but the ultimate result was extraordinarily successful, normal movement being restored except for very slight limiting of extension.

A further important advantage is, that the duration of the healing process is in almost every case shortened. In certain forms of painful indolent ulcer, the so-called *erethetic* type, which have a bad name for their painfulness and their obstinacy, repair and recovery become prompt, certain, and painless.

But one of the chief gains is certainly the improved quality of the cicatrix, and the diminished tendency to relapse, which every one who tries the method will be able to testify to.

It is of course obvious that the method has its limits of application: I may mention, for example, the diathetic difficulties introduced by the presence of syphilis, tuberculosis, scurvy, arterial atheroma, and so on. These require general treatment of an appropriate kind. But in the indolent ulcerations resulting from burns, severe contusions, varicose veins, and so on, the treatment has been of such signal service that we are encouraged to extend its application to other forms also.

I conclude with the cases above referred to: the numerous others treated have been all ulcers of the leg.

Case I.—Anna S——, æt. 24, servant, admitted *June* 24, 1887, with extensive burn of the third degree on the flexor aspect of the left arm and forearm. Iodoform dressing, and later ung. boricum. *September* 2.—Raw surface scarcely diminished, covered with pale spongy granulations, edges thickened and callous; no epidermal growth; floor coarsely fibrous, vascularisation slight. Under an anæsthetic multiple deep incisions made: iodoform dressing. *September* 30.—Surface all covered with healthy granulations, skinning over rapidly: active and passive movements permitted. *December* 20.—All healed except a patch, an inch or so across, in the bend of the elbow, which showed no tendency to heal. This was incised and dressed with iodoform. *January* 30, 1888.—All healed; extension of forearm up to 160°, flexion and rotation normal.

Case II.—Anton S——, æt. 41, mason, fell from a scaffold on *October* 17, 1887, and in addition to concussion of the brain and fracture of ribs received a severe contused wound, some four inches long, on the outer side of the left thigh; fascia lata split, and deep muscle protruding from the opening. Attempt made, after removing as much as possible of the crushed tissue and dirt, to suture the wound and obtain union by first intention. This failed, and there were symptoms of cortical irritation of the brain with delirium. The gangrenous parts sloughed away, and a large ulcer resulted with callous edges and floored by the fascia lata. Ordinary treatment failed entirely to bring about any diminution of the wound. *November* 25.—Multiple incisions made: iodoform dressing. *December* 8.—Wound granulating well. Iodoform-gauze and afterwards ung. argenti nitratis were used, and on *January* 31, 1888, the wound was entirely healed, and the scar had proved durable.—*Central für Chirurg.*—*The practitioner.*

MEDICAL NOTES.

A remedy for *warts*, suggested by E. Vidal, is the following:

℞ Acid salicylic.,
Alcohol, ... āā ℥ ij.
Æther sulphuris, ... ℥ v.
Collodii, ... ℥ x. M.

SIG.—Paint the warts with the solution daily.

An excellent prescription in some stages of *bronchial catarrh* is the following:

℞ Ammonii chlorid., ... ʒij.
Extract. Glycyrrhizæ, . . . gr. xx.
Syrup. pruni virginianæ, . . fʒij.
Syrup. ipecac., ... fʒiij.
Aquæ., ... fʒiij. M.

SIG.—A teaspoonful every three or four hours.

A local application for the severe pains of *gout* and *rheumatism* is suggested by a cotemporary, to be painted on the affected joints every hour or two:

℞ Ætheris,
Collodii flexilis, . . āā ℥ xv.
Acid. Salicylic., ... ʒ iv.
Morphiæ sulph., ... ʒ j. M.

Brown-Séquard's favorite prescription for *epilepsy* was the following:

℞ Potassii iodidi, ... ℥j.
Potassii bromidi, ... ʒj.
Ammonii bromidi, . . . ʒiiss.
Potassii bicarbonatis, . . ℈ij.
Infus. calumbæ, ... f ʒvj. M.

SIG.—A teaspoonful before each meal, and three teaspoonfuls at bed-time, with a little water.

In *influenza*, Dr. J. B. Scott, of Scandia, Kansas, states in the *Therap. Gazette*, Feb. 15th, 1888, that he has found ordinary expectorants useless, and has good success with the following as a remedy for the terrible cough and accompanying headache:

℞ Extract. yerba santa fluid,
Extract. grindeliæ robustæ fluid., āā fʒiij.
Syrup. pruni virginianæ, . . ad fʒj. M.

SIG.—A teaspoonful every two or three hours. Also good whiskey and nourishment.

Dr. E. T. Bruen, of Philadelphia, in the *Therap.*

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Gazette, February 15th, 1888, gives the following formula for a tonic pill in *phthisis*:

℞ Iodoform., ... gr. ½.
Acid. arsenios., . . . gr. $\frac{1}{60}$ to $\frac{1}{40}$
Pil. ferri. carb., . . . gr. j.
Extract. cannabis indicæ, gr. ½.
Quinæ sulph., ... gr. j.

Sig.—One t. d.

M. J. Simon *(Lyons Médical)* suggests the following enema for *infantile convulsions*:

℞ Moschi, ... gr. iij.
Camphoræ, ... gr. xv.
Chloral hydrat., . . . gr. vij.
Vitell. ovi., ... j.
Aquæ destillat., . . . f ℥ iss.

This to be used after the rectum has been emptied by means of a large watery or oily enema.

The following powders for the treatment of *coryza* are recommended by M. Vigier in the *Journal de Médicine*, Jan. 8th, 1888:

℞ Morphiæ hydrochlorat., . gr. ¾.
Acaciæ pulv., ... ℥ j.
Bismuth. subnitrat., . . ℥ iss.
Althæ. pulv., ... ℥ iss. M.

Sig.—Use by insufflation in nares.

℞ Amyli pulv,,
Acid. boric.,
Tinct. benzoin, . . āā . ℥ iiss. M.

Triturate, sift and dry. Add gr. iss morphiæ hydrochlorat, if deemed advisable.

In cases of *cystitis*, Dr. J. B. Scott, of Kansas, reports that he has found the old formula, known as the Lafayette mixture, to produce excellent results (*Therap. Gazette*, Feb. 15th, 1888):

℞ Copaiv., ... f ℥ j.
Liquor. potassæ, . . . f ℥ ij.
Spirit. ætheris nitros., . . f ℥ j.
Extract. glycyrrhizæ, . . ℥ ss.
Ol. gaultheriæ, ... ♏ xvj.
Syrup. acaciæ, ... f ℥ vj. M.

Fiat emulsio.

Sig.—A dessert spoonful three or four times daily, after meals and at bed-time.—*Col. and Clin. Record.*

THE CONDITIONS OF LONGEVITY.

Professor Humphreys presents, in the *British Medical Journal* for March 10th, the final report of the collective investigation regarding aged persons. This report is based on the study of the family histories of 824 persons between the ages of eighty and one hundred years. The results of the investigation, as Professor Humphrey says, do not reveal anything very novel or startling, or give rise to fresh theories of longevity. They tend rather to dissipate certain ideas which are more or less current, though founded upon too limited observation, and to show that the maxims and laws which common sense and sound reason would dictate hold good, and that, as a general rule, those persons live the longest who might be expected to do so. Thus, he adds:

"1. The prime requisite is the faculty of age in the blood by inheritance; in other words, that the body has been wound up, as it were, and sent into the world with the initial force necessary to carry on the living processes through a long period, that this is the case with every organ, and that the several organs are so adjusted to one another as to form a well balanced whole. The various functions will then be equably and harmoniously performed, and there will, consequently, throughout life, be little cognizance of imperfection or ailment of any kind.

"2. The body is usually well developed, and though there are many exceptions to this, rather exceeds the average standard of height. It is capable of much endurance and of quick and complete restoration after fatigue, this latter faculty giving the habit of, and probably the desire for, early rising; and with it also is associated a good power of recovery from the disturbances caused by accident or disease. The cerebral or intellectual powers accord with the general good quality, and the whole nervous system is active and energetic without being irritable.

"3. Owing to the inherent good quality of the nutritive processes, those degenerative changes which, in advancing years, always more or less diminish the elasticity of the arterial coats and of other parts, are slow to occur, so that the pulse retains, in great measure, its softness, and the thorax its vital capacity, while stiffness of limb and general feebleness are late in their manifestation. The decadence of the teeth, which in the animal world generally sounds a death-knell, inasmuch as it deprives the body of the means of obtaining its subsistence, does not seem to augur much in the case of civilized man, to whom the teeth are less directly needed for his maintenance, while another cuticular appendage, the hair, seems to share, to some extent, the enduring quality of the rest of the system."

To the foregoing must be added ordinary opportunities for living well, and under sanitary conditions. Temperance in eating and drinking are essential, but especially in meat-eating and alcohol-drinking.

Professor Humphreys thinks that, on the whole, old age is an enjoyable period of life when the body remains sound and the circumstances of life are comfortable.

Some of the most interesting physiological data are as follows:

The average height was a little over five feet seven inches; average weight a little over eleven stone (154 lbs.)

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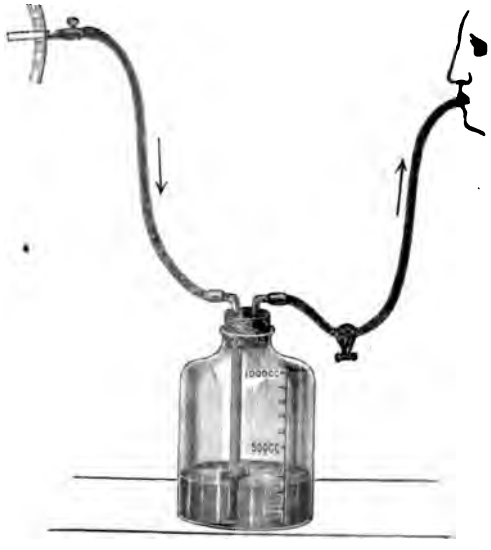
The sight was good in 224 out of 267 cases; the hearing good in 188 out of 329. Out of 320 over one-half took a little, or a moderate amount of alcohol. The average duration of sleep was seven and two-third hours. The pulse averaged about 70 to 74; respiration, 20 to 21 per minute. The arcus senilis was present in 172 out of 266 cases. The heart was affected in 42 cases; the lungs in 62; the brain in 25; the urinary organs in 119 cases. —*Med. Rec.*

APPARATUS FOR REMOVAL OF PLEURITIC EFFUSION.

In the *Berlin, klin. Woch.* Prof. Fürbringer, of Berlin, describes an ingenious and simple apparatus for the aspiration of serous effusions in the cavity of the pleura.

This apparatus, of which we give an illustration, is composed of a receiving-bottle of about one quart capacity, with a rubber stopper, through which pass the ends of two glass tubes, bent at a right angle, and fitting hermetically. One of these tubes goes nearly to the bottom of the vessel; the other passes only through the stopper. The former



is connected with a rubber tube, fitting over a canula three or four millimeters in diameter, and supplied with a stop-cock; the latter is connected with another rubber tube supplied with a compression-stop. In using the apparatus, the end of the second tube is placed in the mouth of the operator and about three fluid ounces of a warm one or two per cent. solution of boric acid is sucked into the bottle through the other tube. The canula is then thrust with the aid of a trocar into the pleural cavity, the trochar withdrawn, the stop-cock closed, and the tube attached. The operator now sucks a little upon his tube and closes it; then the stop-cock in the canula is opened and the fluid begins to flow into the bottle. As soon as the effusion reaches the fluid in the bottle, the compression of the operator's tube is removed and the effusion will continue to pass into the vessels so long as there is any pressure upon it within the chest. When it ceases to flow spontaneously its flow may be solicited by suction upon the operator's tube. In this way about a quart of fluid can be removed from the chest without any risk to the patient or inconvenience to the operator. If the quantity to be removed at one sitting is more than a quart, the canula can be closed, the bottle disconnected and emptied, new antiseptic fluid poured into it, the patient's tube re-connected to the canula and the subsequent steps of the preceding procedure repeated. The method described provides for the slow evacuation of a pleuritic effusion in the most gentle and satisfactory way. It has been used by Fürbringer in more than fifty cases without accident or inconvenience, and certainly deserves to be brought to the attention of American physicians.

TREATMENT OF MEMBRANOUS ENTERITIS.—Dr. W. A. Edwards, of Philadelphia, in an article on membranous enteritis, says:—We may consider the treatment under two headings: the prophylactic and the active, or that which is appropriate during an interval or remission, and that which will resort to during an exacerbation. It is during the remissions or intermissions that we can hope to do more for our patient's permanent good than during an actual attack; it is at this time that diet, regimen, and hygiene are indeed the sheet anchors. A careful supervision must be had of the patient's daily life, all sources of irritation are to be removed, as hæmorrhoids or uterine disease Easily digested or even pre-digested food should be supplied, and care should be taken that undigested particles of food are not irritatiug the intestinal canal. As constipation usually exists, sometimes to a most stubborn degree, mild saline laxatives are usually most efficacious, or enemata may be resorted to.

Exercise for those who can stand it is of paramount importance; this, if possible, should be out of doors. Dr. Fowler most aptly says, he who stints himself in the drinking of water is dirty inside, and he also tells us that we must drink between seventy and seventy-five ounces of water per day in order to make up for the amount which is excreted by the lungs, skin and kidneys, amounting to ninety ounces a day; with the solid food we get but about fifteen ounces. Very few persons at home drink as much as that, but should they go to any of the numerous springs, in which our country is so peculiarly rich, drink five pints of water per day, lead a regular outdoor existence,

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breathe pure air, as many of our springs are situated in most beautiful mountain regions, where the life spent out of doors is most beneficial, the patient will be improved in health, independently of any mineral agent whatever in the water. Unfortunately, however, all of our cases will be unable to avail themselves of a course of treatment at the springs, but as there is no doubt that most of the natural mineral waters preserve their value for a long time, we can put patients through a thorough course at their own homes with the additional advantage of having the case under our supervision.

During the acuteness of an attack opium will often be found necessary to afford relief, and possibly to check excessive secretion or hæmorrhage. Belladonna in the form of the extract, Dover's powder, subnitrate and subcarbonate of bismuth, together with local counter-irritation, all tend to abort the paroxysm, or, at least, to shorten its duration. The following remedies have been suggested: arsenic, copaiba, bromide of potassium, nitro-muriatic acid, henbane, vegetable infusions, prolonged counter-irritation, electricity, turpentine, iron, cod-liver oil, oxide or nitrate of silver by mouth or by high injections, chloride of ammonium, sulphate of zinc, bichloride of mercury, chlorate of potassium, oxide of zinc, blisters, warm water enemata, nux vomica, ergot.—*Am. Jour. Med. Sciences.*

ANTISEPTIC TREATMENT OF PHTHISIS.—Dr. W. H. Spencer, of Bristol, writes a valuable paper on this topic. His conclusions regarding the treatment of phthisis by iodoform and eucalyptol are:

1. He sees no reason to doubt that when iodoform is given in doses that the stomach will bear well, and given freely and continuously for long periods, it is absorbed into the circulation; and in the lungs, in whatever form it be, manifests its antiseptic (or anti-bacillary) action and properties. The good effects of iodoform so administered in phthisical conditions are too unequivocal to be gainsaid, however they may be produced.

2. He sees no reason to doubt that when the vapor of eucalyptol (or other antiseptic vapor that can be tolerated equally well) is inhaled continuously and for long periods, it reaches the residual air in the lungs; and so, externally as it were, bathes the affected tissues or suppurating cavities that may be open to the ingress of the air.

3. Thus, he thinks, we may have antiseptic remedies, not antagonistic, brought up on two sides to the sites of the inflammatory lung lesion, or the sites of bacillary activity; and these antiseptics, mutually co-operative, do affect for good both the inflammatory process and the bacillary activity, and bring about repair by the mode of organization after suppuration or fibroid substitution.

4. He thinks it both desirable and correct to treat pyrexia of acute phthisical processes, whether the temperature be high or moderate, by and for itself. He thinks that quinine, used as in the second case, promises great things for the future in this respect. He thinks that no other special antipyretic than quinine should be used in phthisis; and quinine serves other purposes as well when used as an antipyretic in moderated doses. It succeeded three times in succession, in the second case, in controlling the pyrexia—not the temperature merely.

In the treatment of these cases it is the object to bring about healing of the damaged lung tissue, and this by means of fibroid substitution. "In order to attain this end we must secure the same conditions and adopt similar measures, if we can by any means compass it, to those we find successful in dealing with suppurations, ulcerations, and the like lesions, in parts exposed to view." To secure these conditions we should adopt measures for supplying adequate nutrition—that is, adequate anabolism of tissue and the storing of energy—in the body generally, and in the damaged part in particular. We should deal with pyrexia on its own account, as a general and constitutional state, apart from the local suppuration or ulceration (as by quinine). We should bring the lesion under the influence of antiseptic remedies, both by internal medication (as by iodoform), and by external applications (as by inhalations of eucalyptol); and the application and influence of the antiseptic should be complete, continuous and prolonged.—*Journal Amer. Med. Association.*

DIAGNOSIS OF ASTHMA AND AORTIC ANEURISM.—Dr. J. W. Lord and Kintzing report the following case. A coloured man, aged forty-nine, was admitted into the hospital with a history of irregular asthmatic attacks for four years, especially after any great exertion. The attack consisted of dyspnœa with cough, followed by the expectoration of a little thin serous fluid, which gave some relief. The spells of dyspnœa had increased in number, the cough become more constant, expectoration had steadily increased, and his voice had become husky; he had noticed that changes of position gave him relief, and that copious expectoration also brought a certain amount of amelioration. On admission there was very marked dyspnœa; the physical signs were those of advanced emphysema; liquid *râles* were heard all over his chest; the heart sounds were obscure, but a faint systolic murmur was heard at the mid-sternum, opposite the fourth cartilage; there was no difference between the radial pulses; the pupils were equal. Treatment was directed against the asthmatic attacks, but without much success, for the man died a few days after he came under observation. The heart was found on examination

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after death to be greatly enlarged, the left ventricle being much hypertrophied. There was no valvular disease. The aorta was dilated and contained numerous calcareous and atheromatous plates; three large sacculations were also found just above the valves. Further, a large irregular aneurism of the dissecting variety was discovered, involving the transverse and descending portions of the arch. It completely surrounded the trachea and œsophagus, pushing them to the right. The sac was entirely filled with laminated clot. The pneumogastric nerve was compressed between the pericardium and the sac. The bodies of the second, third, fourth, and fifth dorsal vertebræ were eroded. —*New York Med. Jour.*

THE HOT BATH IN THE TREATMENT OF SLEEPLESSNESS.—Mr. S. Eccles, in the *Practitioner*, states that to secure sleep by means of the hot bath, the following precautions have to be attended to:—The bath-room must be heated to about 70° F., then the patient must be stripped in the bath-room, the head and face first being rapidly douched with water at 100° F. By this means the body is cooled, whilst a rush of blood is sent to the head. Then the whole body, excluding the head and face, is immersed in the bath at 98° F, rapidly raised to 105° or 110° F. In about eight to fifteen minutes the patient feels a sensation of pleasant languor, when he must be wrapped in warm blankets, and proceed to the bed-room with as little personal effort as possible. By the time the bed-room is reached the moisture on the surface of the body will have been absorbed; the patient must then put on his night-clothes and get into bed, lying with the head raised, hot bottles to the feet and well covered with bed-clothes. No conversation or moving about the room should be allowed, and all light must be excluded. In a few minutes the patient will be found in a quiet, refreshing sleep. The theory of the method is based on the sudden exposure of the body contracting the arterioles of the skin, causing thereby a corresponding dilatation of the vessels of internal organs, which in the case of the brain is further induced by the application of hot sponging. The immersion of the whole body next causes a dilatation of the vessels of the surface, except the head and face, with contraction of the vessels of the brain and gradual slowing of the heart's action, thus placing the brain in the most favorable condition for complete functional rest. There are certain conditions, however, in which this method is contra-indicated. Persons suffering from anæmia or emaciation, or from aortic valvular disease, or in whom signs of atheroma are recognized, should not be subjected to such rapid variations of local arterial tension as this process entails. In such cases massage may give good results.—*Glasgow Med. Jour.*

PERICHONDRITIS OF THE LARYNX.—This case has several interesting points. A man forty-three years of age, presented himself with a subglottic swelling beneath the right vocal cord, producing hoarseness but no dyspnœa. Malignant disease was suspected. Eight days later tracheotomy was done on account of urgent dyspnœa. The vocal cords were almost hidden by swelling of the parts above them, and externally over the thyroid some tenderness and swelling were observed. Two days later a laryngoscopic examination showed increase of the swelling. The odor of the breath was offensive, and there was copious discharge of mucopus through the tracheal wound. Expectoration was free in consequence of a bronchitis which supervened. Iodol benefit. Ten days after the tracheotomy a small piece of cartilage was expectorated, and decided improvement followed. Scarifications were made with the laryngeal lancet, and vapor pini sylvestris was used. There was a slight degree of dysphagia and constant pain over the lower part of the left wing of thyroid For more than a month the case progressed favorably. The patient then expelled quite a large piece of bone(?) and in a day or two had a return of bad symptoms The larynx was again sacrified, and an ice-bag was applied. The improvement from this time was slow but without interruption. Four months after the tracheotomy the use of Mackenzie's three-pronged dilator was resorted to, so that in the course of three weeks it was possible to dispense with trachea tube. Iodide of potash was given, although no history of syphilis could be obtained. Iodol was found to act little better than iodoform. Headache was relieved by antipyrin. Subglottic laryngoscopy through the tracheal was attempted, but did not succeed. Chronic laryngitis seems to have been the cause of the lesion. The paper closes with a brief reference to a similar case, arising also from chronic laryngitis, in which the cricoid was involved, and for which tracheotomy was done.—*Br. Med. Jour.*

ACETIC ACID AND ERGOT AS ECBOLICS.—Since Dr. Grigg called attention to the value of vinegar as an ecbolic, I have frequently used it for that purpose. And I have also found that four drops of the strong acetic acid (representing nearly half a drachm of vinegar) combined with strychnine have been successful in bringing about contractions of the uterus after ergot had failed. In one noteworthy case, where in a very weak and anæmic woman the pains, after continuing feebly for a day or two, seemed to be leaving her, and ergot had been exhibited (the waters having broken), I found acetic acid and strychnine produce sharp and effectual pains.

The same thought, therefore, occurred to me as to Dr. Francis, of the possibly good results of combining it with ergot, and, in addition, observing

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that acetic acid could extract the active principle from colchicum and ipecacuanha, I asked Messrs. Corbyn to make a preparation of ergot, using acetic acid as a menstruum, with a standard surplus of free acid. In a short time I received from them two samples, one of ergot extracted from acetic acid, of which a fluidrachm represented sixty grains of ergot with ten minims of free acid; the other an alcoholic extract of ergot, which also represented sixty grains of ergot and ten minims of free acid to each drachm.

Both preparations had the color of the ordinary extracts, but the acetic acid frothed when shaken, which, of course, the alcoholic extract did not do. The acetic acid process should be more economical than the spirit method.

In a case where there was retained discharge after labor I gave some of this extract, and when the medicine was exhausted wrote a prescription for a similar dose of *B. P.* extract, to which I also added some bromide of potassium, which is stated to aid the involution of the womb. The case was still unrelieved on my next visit, the uterus being obviously distended, so, after syringing out the cavity, I told them to have the medicine made up again, when the patient said, "Oh, sir, the medicine you gave me at first brought away something every time, but this medicine has done no good." This seems like a comparative test in favor of the acetic extract.

In a case of flooding, due to a large fibroid, I found that twenty minims injected deeply into the buttock gave rise to no local irritation, and there was no bleeding the night following, but there needs further experience before attributing this result to the drug. Ergotine disks did not always control it.—*Br. Med. Jour.*

Sir Morell Mackenzie's professional brethren have been greatly gratified by the confidence placed in him by the Emperor Frederick, and by the extraordinarily warm appreciation of the English physician's services which His Majesty has expressed both by word and deed. In conferring on Sir Morell Mackenzie the honors and decorations which he has so well earned, the Emperor added immensely to their value by a letter written with his own hand, of which the following is the full text:

"Charlottenburg, April 9, 1888.

"My Dear Sir Morell: You were called in to me at the unanimous desire of my German doctors who were treating me. As I did not know you personally I had confidence in you on account of that recommendation, but I soon learned from personal experience how to value you. You have rendered me most valuable services. In recognition of those services, and as a souvenir of my accession to the throne, I have pleasure in conferring upon you the Comthur Cross and Star of my Royal Order of Hohenzollern. Your well disposed

"To Sir Morell Mackenzie." "Friedrich."

One does not need to "read between the lines" of this letter to perceive its significance. The first sentence fully disposed of various mythical accounts of the way in which Sir Morell Mackenzie was called into the case which have been current in the profession and in society. Before subjecting the heir to the Imperal Crown of Germany to a formidable operation—which might, possibly, be attended with disastrous consequences, not only to the august patient, but to the whole of Europe—Professor von Bergmann naturally wished to have the sanction of an expert whose authority would be generally recognized. The choice lay between the leading English laryngologist and Professor Rauchfuss, of St. Petersburg, and the former was selected, as the Emperor says, "at the unanimous desire of my German doctors." The concluding words in which the Emperor speaks of his accession to the throne prove beyond all doubt that His Majesty believes that it is to Sir Morell Mackenzie's "masterly inactivity" that he owes his present position, with all that it involves. We are pleased to see that the people of Germany are beginning to judge Sir Morell Mackenzie's conduct of a most difficult and anxious case in a fairer spirit than some persons there seemed at first inclined to do.—*Br. Med. Jour.*

Posture and Rectal Disorders.—The study of the posture of the human body in its relation to the needs of daily life has received a new impetus from Minneapolis. A physician of that city contributes to the *Northwestern Lancet* an article demonstrating that the squatting posture is the natural and proper one in defecation, and that the adoption of it tends to relieve constipation, heal hemorrhoids, and prevent uterine displacements. The physiological squat, it is believed, places the body in a position adapted to secure the greatest pressure on the abdominal walls and rectum. Besides this, it is so uncomfortable that the operator has to attend strictly to the business of the moment. He cannot dally with the morning paper while exposing the gluteal regions to subterranean draughts, and thus laying the foundation for fissures, piles, and prolapsus.

The squatting position is naturally assumed, says, Dr Abbott, by monkeys, apes, and man. In savagery and on the frontiers of civilization this posture is the ordinary one. But man seems to be a luxurious animal, and our writer must admit that, on the very first opportunity, he abandoned the ape position for any appliance that will support the thighs, from the edge of a board to the elegant ease of artistically perforated and polished mahogany.

Dr. Abbott apparently makes a strong point for the squatting posture when he says it is the one recognized by Holy Writ. While this may be the case, there is some reason, on the other hand, to believe that the squat is the natural position

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of the devil. At least we are told in "Paradise Lost," that

"Him there they found,
Squat like a toad close at the ear of Eve."

Hence it will not strengthen the case to bring in the religious factor. But Dr. Abbott puts the case most strongly when he pictures the indolence which the American temperament exhibits in the water-closet—the only place where he is not in a hurry.

"How far from nature," he says, "is the woman, who, perhaps intensely interested in the quesiton of blue or green for her bonnet, will sit in deep contemplation for ten minutes, straining, between thoughts, as if in childbirth, finally concludes she was mistaken aud goes back to the bonnet, to return to the closet again only after three or four days constipation have given her a splitting sick-headache. Man abuses his blessed privileges in the same way, figuring perhaps on a real-estate deal instead of a bonnet, or perhaps with magazine in hand making increment above, but failing in excrement below."

If the primeval posture suggested will make men and women distribute the time devoted to their emunctories more judiciously, it may be a wise measure to adopt, although we fear that it is not destined to have a fair trial in any but strictly rural districts.—*Med. Rec.*

LACTIC ACID IN THE DIARRHŒAS OF CHILDREN. Dr. G. Hayem, more than a year ago, called attention to the remarkable utility of lactic acid in the diarrhœas of children. Recently, in a communication to the Academy of Medicine (*Revue de Thérap.*, February 15), he has renewed his suggestion, and presented new evidence of the value of the remedy. He finds that better results are had from larger doses that he formerly advised. In the more severe cases he has administered a 2 per cent. solution up to twenty teaspoonfuls in the course of twenty-four hours. The formula employed by him is the following:

Lactic acid (pure) . . .	ʒss.
Syrupi	ʒj.
Water	ʒiij.

The strength of this is about one minim to the teaspoonful. The quantity given will vary with the age of the subject and the nature of the attack. M. Sevestre, one of the physicians to the Children's Hospital, confirms the statement of Hayem regarding the therapeutic power of the remedy in question, and he also finds that a considerable quantity is required to effect the best results. The latest experience demonstrates that a teaspoonful of the 2 per cent. solution should be given every five minutes in the worst cases, and from this up to a teaspoonful an hour; the amount required varies with the conditions present.—*Am. Jour. Med. Sciences*

SEVERE EFFECTS OF CASCARA SAGRADA.—Although the testimony of every one is almost unanimous as to the satisfactory and pleasant action of the fluid extract of cascara sagrada, yet its very severe and even prostrating action in a couple of cases reported by Dr. R. O. Cotter in the *Atlanta Med. and Surg. Journ.* (March, 1888), calls attention to the fact that even this substance cannot be used without care in its administration. The first case was that of a man 60 years of age, who was given a drachm dose at night for several days' constipation after an operation for cataract. The dose not acting, he was given the same quantity in the morning following, and the dose again repeated at noon. The bowels than began to act, and for twelve hours the purging action of the drug was so severe as to very closely resemble regular cholera morbus, and greatly prostrated the patient. But perhaps these doses were too frequently repeated, and Dr. Cotter states, and his experience will without a doubt be confirmed by others, that he has taken it himself in the same way with no unpleasant results. Then, again, he states that he prescribed a drachm dose for a lady patient at night, and a second dose was followed by a very severe action and great prostration and feebleness for three or four days.—*Therap. Gaz*

WARNER'S SAFE KIDNEY CURE.—The following purports to be the formula: Take of

Liverwort	1 oz.
Potassium nitrate	320 grs.
Water	q. s.
Alcohol	2 ozs.
Glycerin	12 drs.
Essence of wintergreen . . .	40 mins.

Infuse the liverwort in one pint of hot water for two hours, strain or filter; dissolve the nitre in the infusion, and when cold add the alcohol, glycerin, and essence of wintergreen, and finally add water to make one pint.—*National Druggist.*

THE clergy have lately become much concerned over the future of physicians. Sam Jones says he would not care to go to heaven if he thought there were any doctors there. [The doctors have yet to be heard from—ED.] He doesn't know how it is that the study and practice of medicine makes men irreligious. In his experience it has been a rare thing for him to meet a religious doctor. At the late commencement exercises of the Detroit College of Medicine, the clergyman who made the address, also expressed the belief that there are no doctors "over there." He, however, was not ungracious enough to ascribe their absence to their wickedness, but simply to the fact that there are no sick angels. It did not seem to occur to our reverend brother that physicians could take part or pleasure in the exercises of the place, but that, as is the case here below, they must be doctors or nothing.—*Med. Age.*

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THE CANADA LANCET.

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THE PAST AND PRESENT TREATMENT OF PNEUMONITIS.

The ever varying treatment of inflammatory diseases, and especially that of pneumonia, has recently received some consideration and useful comparison with the modes employed by our fathers about the middle of the present century. The results obtained by able and conscientious investigators in this field certainly do not flatter us. Statistics, so far as can be obtained, clearly prove that the former treatment, viz.: the moderate extraction of blood, judicious catharsis, promotion of the various secretions, etc., in the early stage of suitable cases, which prevailed from 1840 to 1860, produced better results than have been obtained since. During that period in England, America and Germany, the mortality in pneumonia averaged but 8.33 per cent. Subsequently the agitation against blood-letting, cathartics, elimination and so called depressant remedies had its effect, which continues to the present. The antiphlogistic treatment was followed by the stimulant, which resulted in increasing the mortality in hospital cases to 25 per cent. in America and Germany, and by the recent returns of the Collective Investigation Committee of the British Medical Association, in more conservative Great Britain, to 18 per cent. This is certainly a bad showing for our boasted advance in medicine, but one which should teach us a valuable lesson. The worst results were obtained under the opium treatment, which prevailed for a time. The pendulum of professional opinion, started about 1850, against blood-letting and other so-called antiphlogistics, has evidently swung too far. It has recently not only ceased to progress, but started backward on its ceaseless course, and if these statements of statistical research are at all reliable its speed must be greatly accelerated.

It is to be sincerely regretted that we have no statistics of private practice to correct or endorse those of the hospitals. Many of the older physicians will be able to remember the general results of the former treatment in their younger days, and will doubtless candidly compare those results with these of the present, and confirm or dispute the correctness of the hospital statistics in relation to private practice. Personally, we believe that the results in the latter will, to some extent at least, confirm and endorse the hospital statistics. Experience is slowly teaching the older physicians that many of the alleged antipyretics are not producing the good ultimate results in inflammatory maladies anticipated, and we find that the administration of quinine in large doses, as well as the various recent drugs which subdue the pyrexia, seldom abort or subdue the inflammatory action, or prevent fatal results in severe cases. Nor have these alleged remedies proved free from danger, and more than a few instances have been published where they have hastened the fatal result if they did not wholly cause it. Their injurious effects are becoming more and more obvious as time to test their real value progresses, although these may have been caused by want of experience and injudicious administration. That antipyretics are, to some extent, useful in cases where the temperature exceeds 104°, obviating the evil consequences arising from hyperpyrexia, we think cannot be successfully disputed; but that they in any way benefit the acute organic inflammation, other than by suppressing the injurious excessive temperature, and allaying the neurotic irritation, is very questionable so far as experience has gone. Of the antipyretics, the least injurious and most effectual is the abstraction of heat by cold applications. The cool or cold bath, and nature's method of removing superfluous heat by evaporation of moisture from the surface, has long since been known as a remedy of value. Liebermeister, of Tubingen, has tested

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its effects in 150 cases of pneumonia, and claims to have reduced the mortality from 25 per cent, for the previous thirty years, to 10.5 per cent., chiefly by these means. This is a very favorable result, but yet not equal to those obtained under the so-called moderate antiphlogistic treatment of a former period. The drugs, such as quinine, antipyrin, antifibrin, etc., he seldom used. He does not regard moderate fever an unmixed evil, but considers it retroactive and conservative, and, unless in excess, thinks no good purpose is served by suppressing it. Hydro-therapy is not, by any means, a new thing, but was employed many years ago in excessive fevers, inflammatory, and others, in connection with the then moderate antiphlogistic treatment by many successful and distinguished physicians. We should, therefore, employ so safe and reliable a remedy, when evidently demanded, while we hasten to retrace our steps wherein experience has shown that we have deviated from the true road, and return to the methods of treatment which have evidently produced the most desirable results.

FREE TRADE IN SURGICAL INSTRUMENTS.

The question as to whether our Government should impose a duty on all surgical instruments and appliances imported, is one of deep interest to all the members of the profession. It is a fact generally admitted, that no profession at the present day does as much work for charity, both within and without eleemosynary institutions, as ours. True, work done in hospitals and kindred institutions is generally undertaken with the idea of obtaining for the physician or surgeon a wider scope and larger field of operation whereby he may add to his stock of knowledge, and advance as well the interests of his profession and of science, as his own. Outside charity practice is by no means so satisfactory. There the medical attendants have to combat poverty, ignorance, want of proper nursing and all the kindred enemies to scientific treatment, so that few do such work for any other reason than that common humanity demands it. In no other profession, perhaps, is the need of skilled labor so urgent, as in that of medicine. It would be useless to continue this argument, for both the profession and the public know that every doctor does a great deal of work for which he never expects to be remunerated, in this world at least. When it is a matter of giving his time and professional skill, the doctor is in a certain sense bound to fly to the aid of the distressed, whether he expects to be paid or not; but it is surely too much to ask him to spend his substance in the purchase of expensive instruments and appliances for the performance of operations done for charity. The surgeon is especially hardly dealt with in this respect, for not only does he give up his time and rest, to assuage the sorrows of the poor, but he also runs the risk of ruin, professional and financial, by suits for malpractice brought against him, when in the vast majority of cases, the whole blame for untoward results rests with the nursing the patient receives. Perhaps to avoid such untoward results he should be expected to supply a nurse, proper food and all the many surroundings, which go to make up a suitable environment for a patient. Thackary cannot be said to take an optimistic view of mankind, yet he gives us a type of a *Dr.* in *The Adventures of Philip*, who not unfrequently left with his poor patients half guineas as well as boluses; and we believe that the type has not disappeared. Why then should we be made to pay nearly twenty-five per cent. more for our instruments than we should have to do if this impost were not exacted. The question of Canada ever producing surgical instruments as one of the industries of the country, is surely out of count. No one could for a moment entertain the opinion that we can manufacture our own instruments as cheaply or as well as they can be manufactured at the great centres in Great Britain and the United States. So that the only other apparent reason why this vexatious duty should be imposed is the revenue returned by it. It seems to us that to argue the justness of such a tax, levied directly on medical men, is impossible. The reasons why this duty should be removed are numerous, and patent to any one with an ordinary intelligence. The young practitioner suffers from the want of a proper outfit, which can only be obtained by the favored few who have considerable capital at the commencement of their practice. The vast majority, therefore, of our young men are handicapped at the outset, by insufficient equipment for their professional duties. This, though a great evil, is perhaps not

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the greatest one which results from the outrageous price of the goods we are speaking of. A greater, is the lack of proper treatment which the poorer classes suffer, owing to the scarcity of proper instruments. How many medical men, in the country especially, can recall cases in which health and comfort have been lost, and even life sacrificed, owing to want of perfect instruments and appliances. We believe that the aggregate of suffering and loss of life, and consequently loss of wealth to the country would be appalling in its magnitude if such aggregate could be set forth. Now the removal of this tax will not give every practitioner a good outfit, but it will enable men with slender means to purchase goods for about three-fourths the price they now pay, and we might reasonably expect to see a corresponding improvement in the working tools of the profession, which could not fail to be a direct benefit to the public at large. We intend to call attention to this matter in a future issue, and in the meantime shall be glad to have the opinion of members of the profesion, whether for publication or otherwise.

RECORCINE IN WHOOPING COUGH.

This remedy has been extensively employed during the last few years in the treatment of whoopiug-cough, with very good success. Dr. Moncorvo, of Rio de Janeiro, was among the first to bring the treatment into general notice. He strongly advocated the topical employment of resorcine in the strength of a one per cent. solution, applied by a fine pencil-brush to the larynx. He gives the following as his general conclusions on on the subject:

1. That whooping-cough—whose nature, up to a very recent period, has been subjected to the most diverse interpretations, in relation to its genesis—may, to-day, according to the latest microscopic researches, be included in the class of parasitic diseases. 2. That the disease appears attributable to the presence of micrococci which multiply prodigiously in the hyperglottic vicinity of the larynx, infiltrating its epithelial cells, which appear to be the predilective seat of their development. 3. That resorcine, applied to the laryngeal mucous membrane, caused, in all the cases in which it was employed, rapid decrease of the number of the paroxysms, moderation of their intensity, and finally recovery in a short period of time, without the aid of any other medication whatever.

Dr. Moncorvo says that resorcine, owing to its much less caustic action and the absence of disagreeable taste and odor, is far preferable to carbolic acid. He has administered it internally to children, even the newly born, suffering under diarrhœa and dysentery. He advises that strict attention be given to the quality; and he recommends that prepared by Monnet, of Geneva, which is of notable whiteness, and in the form of silvery bright crystalline needles. It is extremely soluble in water. Dr. M. recommends the topical application with a fine pencil-brush, to be repeated every two hours. The first applications, he says, sometimes exacerbate the coughing fits, but this irritation ceases in two or three days. In twenty cases treated by him, he was not disappointed in his expectation in a single instance; and some of them had been very obstinate, or even dangerously complicated, as with hereditary syphilis, threatened hydrocephalus, pulmonary tuberculosis, intermittent fever, etc. This drug being a congener of carbolic acid, no doubt acts in a similar manner as a parasiticide. Dr. Moncorvo states that he has, by numerous microscopic examinations of the sputa expectorated by his patients suffering from whooping-cough, verified the statements made by Letzerich, Henke, Steiner, Hagenbash, and other writers, as to the parasitic character or complication of the disease. The treatment advocated by him is, therefore, free from all insinuation of empiricism, and, as the article is not expensive, it will no doubt soon be largely sought after if experience prove the correctness of the drug to claims for it.

DIFFICULTIES SURROUNDING A COUNTRY PRACTICE.

The difficulties which beset the practitioner in the country are very well shown in the following correspondence to the *N. C. Med. Jour.*, who compares laparotomy in New York City and in North Carolina:

"These men, teaching in the great hospitals here, are great men and great teachers, and far be it from me to take one jot or tittle from their merited honor, but oh, how great are their opportunities! If a big operation is to be done in New

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York, the surgeon can familiarize himself with the parts by immediate dissection. He is supported by able counsel, aided by trained assistants, and last, but by no means least, he goes into the operation without feeling if his patient die he will be looked upon as a sort of semi-murderer; for, if an unfortunate result follow, it is quickly forgotten in the hurry and innumerable death-rate of the great city. But with us, how different! A great emergency arises—a serious operation must be done immediately, and at best one can rarely obtain more than one professional assistant. Ofttimes the assistant will be a common laborer, the best light obtainable a pine-torch or kerosene lamp minus a chimney, and with a paucity of instruments, because too poor to buy a complete outfit, the surgeon gropes his way through delicate tissues till the work is done and the life of his patient is saved. I recall to mind now a case of successful laparotomy done for gunshot wound of the abdomen, and reported at the last meeting of our medical society, in which I am reliably informed the operator had only the assistance of a negro field-hand and worked solely by the light of a pine-torch."

This will strike a responsive chord in the breast of many of our readers. There is no doubt that men have risen to greater heights in moral courage in attempting operations in the country than do our specialists in the large cities, and have performed noble deeds and saved lives under the most trying circumstances in which medical men can be placed, and yet neither the world at large, nor even the medical profession knew of them. Our country friends are, speaking broadly, either too modest or too careless to report interesting and instructive cases in their proper place, viz., the medical journals of their country.

"He who great ends by little means attains"

is worthy of all honor, and if he will but let the world know of the great ends attained can not fail to obtain his meed of praise and renown.

ONTARIO MEDICAL ASSOCIATION.—The following is a list of papers received by Dr. White, the Secretary, up to the time of going to press.

Papers by guests:—Dr. Wyeth, New York, "Plastic operation for closure of urethra, rectal fistulæ, and intestinal sutures." Dr. A. W. Johnstone, Danville, Kentucky, on "Soft myoma." Dr. C. C. Rice, New York, ———

Papers by members:—"Neurasthemia," Dr. D. Clark; "Coroners' inquests," Dr. J. H. Richardson; "Bacteria, their influence upon the blood and tissues," Dr. C. Sheard; "Pessaries, their range of usefulness," Dr. Temple; "Intestinal sutures in gun-shot wounds," Dr. Oldright; "Laparotomy in intestinal obstruction," Dr. McFarlane. Discussion in Surgery,—"Urethral discharges," Dr. Grasett; discussion in Medicine,—"Malaria as a cause of disease," Dr. Mullin, Hamilton; discussion in Obstetrics,—"The diagnosis of obscure pelvic ailments," Dr. A. A. Macdonald; discussion in Ophthalmology,—"Some affections of the eye of interest to the general practitioner," Dr. Burnham. "On the so-called moral insanity," Dr. Workman; "Idiopathic glossitis," Dr. Hunt, Clarksburg; "Congenital goitre," Dr. Mackenzie, Wingham; "Treatment of inguinal hernia," Dr. Robinson, Brampton; "Compound fracture of humerus, illustrating extension as secured by a new modification of Sayre's short hip splint," Dr. C. M. Smith, Orangeville; "Rest in neurasthemia," Dr. A. H. Walker, Dundas; "Notes on Physiology, of 1887, of clinical interest," Dr. McCallum, London; "Craniotomy," Dr. Harrison, Selkirk; "Intubation of the larynx," Dr. Stark, Hamilton; "Empyema," Dr. Whiteman, Shakespeare; "Antiseptic treatment of wounds of the hand," Dr. Olmstead, Hamilton; "Operations on bone," Dr. Dupuis, Kingston; "Leucocythæmia," Dr. McPhedran, Toronto; "Life Insurance, and the relations of the profession thereto," Dr. Thorburn, Toronto; "Uterine electrolytic apparatus," Dr. A. M. Rosebrugh, Toronto; "Puerperal eclampsia treated with pilocarpine," Dr. Irving, Kirkton.

The guests of the Association this year are:—Drs. C. C. Rice and G. W. Fox, delegates from N. Y. State Med. Society; Wyeth, Gill Wylie, Leonard Corning, of New York, and A. W. Johnstone, of Danville, Kentucky.

Several of the Montreal men are expected at the meeting; they are always welcome. It is expected that our Ottawa confrères will be out in full force. The list of papers, so far, shows a marked predominance of surgical subjects. Where are the gynæcologists?

Extensive preparations are being made by the Committee of Arrangements to provide for what they expect to be the largest meeting of the Association ever held; certainly there is abundance of material to present.

The Constitution and By-laws are being printed again, with the addition of the "Code of Ethics," under one cover; an excellent idea.

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COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

Primary. – Honors, L. F. Baker, E. Ball.

Passed.—A. G. Aldrich, E. H. Adams, J. S. Agar, D. Archer, Miss M. Agar, H. F. Amall, C. W. Allingham, T. A. Beaman, G. T. Bigelow, Miss M. Brown, E. J. Boyes, Miss S. P. Boyle, G. D. Cram, W. J. Campeau, C. P. Clark, C. B. Coughlin, F. R. Clark, D. W. Campbell, C. W. Clendennan, E. M. Copeland, R. Clannonhouse, G. Chambers, C. B. Carveth, T. S. Cullen, W. H. Clutton, —Clerihewein, R. P. Dougan, S. Douglas, Miss A. Dixon, F. A. Drake, J. F. Dolan, J. E. Forfar, W. J. Fletcher, C. E. Hall, A. B. Field, M. Ferguson, A. Freeland, A. Gaudier, N. D. Gunne, J. B. Gamble, J J. Gee, W. A. Grey, M. E. Gillrie, C. B. H. Haney, J. Holdcroft, D. H. Hutchinson, W. C. Herrman, G. M. Harrison, R. Hill, L. J. Hyttenrauch, Miss M. Hutton, A. T. Hobbs, R. H. Houver, A. N. Hayes, R. M. Hillary, W. Hamilton, J. A. Jay, A. S Ironsides, Miss E. J. Irvine, W. A. Jones, O. L. Kilbain, T. E. Kaiser, W. C. Little, H. O. Lanfear, C. M. Lang, Miss Ida Lynd, A. J. MacAuley, J. R. MacDonald, J. A. MacDonald, M. T. MacFarlane, E. Macklin, W. E. Morrison, R. A. McArthur, W. H. Mulligan, A. J. Macdonnell, O. F. Macdonald, O. E. McCarthy, R. McGee, D. K. McQueen, J. D. McNaughton, J. W. S. McCullough, W. A. McPherson, P. W. H. McKeown, J. S. McCarthy, D. D. McDonald, W. B. Nesbitt, John Noble, C. B. Oliver, R. H. Orton, J. A. Patterson, C. J. Patterson, F. W. Penhall, F. Preiss, W. H Philip, W. M. Pugh, P. C. Park, L. E. Rice, R. Rowan, T. B. Richardson, E. Reavly, R. W. Rooney, A. L. Reed, C. Sheppard, J. L. Smith, A. M. Spence, R. B. Struthers, R. Striell, H. A. Stewart, G. A. Shannon, J. M. Sifton, A. H. Speers, F. H. Starr, D. Smith, C. L. Starr, W. D. Springer, J. R. Stone, W. J. Turnbull R. Towle, J. F. Wren, N. Walker, H. W. Welch, Mrs. H. A. Walker, F. Walsh, A. F. Walker, H. T. H. Williams, A. A. Weagant, George Wright, F. Zwick.

Final Examinations.—E. C. Arthur, A. E. Ardagh, C. N. Anderson, L. Auld, H. Bowlby, G. Bell, R. Bishop, D. Bechard, W. J. Bradley, F. T. Bibby, E. W. C. Barber, D. T. Bell, L. F. Cline, D. M. Campbell, Miss S. Carson, W. P. Chamberlain, S. Cummings, J. C. Connell, Frank P. Cowan, Miss Agnes Crane, C. P. Conroy, W. J. Campeau, D. W. Campbell, W. H. Chilton, Miss A. Dixon, W. H. Downing, J. M. Eaton, Elizabeth Embury, L. A. Fere, J. H. C. F. Fisher, A. J. Fisher, C. H. Francey, J. G. Ferguson, T. Ferguson, J. C. Grasett, N. D. Gunne, A. J. Hunter, A. N. Holson, J. F. Hart, W. H. Harris, C. W. Haentschell, E. H. Horsey, C. B. H. Haurey, L. J. Hyttenrauch, W. H. Jeffs, D. Jamieson, C. J. W. Carn, D. A. Kidd, J. H. Kennedy, C. B. Langford, B. Lammiman, T. H. Little, Miss A. Lawyer, A. Myers, W. H. Merritt, D. C. Myers, C. N. Mallory, J. H. O. Marling, P. MacNaughton, A. B. Macallum, R. D. Moffatt, C. Morrow, A. J. Macdonnell, A. W. McCordick, J. B. H. McClinton, P. McLaughlin, Miss M. McKay, E. McGrath, M. A. McLaughlin, M. A. McFarlane, J. A. McDonald, L. G. McKibbon, J. McGillaway, D. McLennan, D. R. McMartin, J. G. McCarthy, D. D. McDonald, John A. Neff, T. O'Neil, J. F. Palling, J. C. Patton, Mrs. A. L. Pickering, John Proudfoot, P. C. Park, E. H. Robinson, E. Reavly, M. Steele, W. H. Smith, E. Sisley, J. A. Scott, A. W. Stinson, D. J. St. Clair, R. B. Struthers, O. Taylor, P. W. Thompson, F. G. Thompson, A. F. Tufford, H. B. Thompson, R. E. Towle, J. P. Vrooman, J. S. Wardlaw, T. P. Wier, G. R. Watson, R. E. Walker, A. W. Whitney.

UNIVERSITY OF TORONTO.

Medals—Gold, G. A. Fere; *Silver*, J. Galloway.

Scholarships—Third year—1. J. H. Collins; 2. G. Chambers. Second year—1. L. F. Barker; 2. W. H. Philp. First year—1. J. A. Henderson, W. N. Barnhart, æq.; 2. R. L. Langstaff, T. W. Schlenker, æq.

M.D.—M. H. Aikins, C. H. Britton, P. H. Bryce, J. H. Burns, W. Cornell, W. B. Duck, J. Ferguson, J. G. Head, P. G. Meldrum, A. A. Macdonald, G. R. McDonagh, L. McFarlane, A. F. McKenzie, C. McLellan, G. A. Pettigrew, S. B. Pollard, E. Prouse, J. W. Ray, W. T. Robson, J. F. W. Ross, A. Scott, G. M. Shaw, S. B. Smale, A. Taylor, R. J. Trimble, J. E. White and A. H. Wright.

M.B.— W. C. Barber, George Bell, F. T. Bibby W. H. Clutton, S. Cummings, F. J. Dawson, G. A. Fere, J. G. Ferguson, T. A. Ferguson, J. Galloway, J. Grant, W. Hamilton, T. A. Hardie, G. F. Jones, C. B. Langford, T. H. Little, J. T. Manes, J. McGillawee, Anthony Ochos, J. C. Patton, J. A. Scott, E. Sisley, W. H. Smith, A. W. Stinson, P. W. Thompson, R. E. Towle and T. P. Weir.

VICTORIA UNIVERSITY.

M.D., C.M.—Geo. Bell, Samuel McKibbin, John S. Hart, Robert K. Anderson, Chas. B. Langford, Albert W. Stinson, M. E. Gillrie, Thos. H. Little, Geo. A. Dickenson, P. W. Thompson, Jas. A. Cross, Thos. A. Ferguson, G. Silverthorn, J. J. Broad, T. P. Weir, Frank J. Dawson, Wm. C. Barber, John Carruthers, Geo. F. Jones, Silvester N. Young, John Grant, Thos. Webster, R. G. Montgomery, J. C. Patton, W. C. Gilchrist, Geo. R. Watson, J. G. Hutton, D. H. Piper, Walter Hamilton, F. W. Kitchen, J. A. Ross, Opie Sisley, J. A. Millican, J. Tyrrell, J. McGillawee, Lambert Watson, F. J. Bradd, W. R. S George, Thos. Bulmer.

Primary—J. L. Turnbull, J. A. Ivey, Cole, E. Bull, A. G. Aldrich, T. E. Kaiser, R. C. Dougan, B.A., A. B. Field, J. D. McNaughton, C. W. Clen-

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dennan, W. E. Gimby, J. E. Forfar, C. D. Lockyer, J. H Gimby, M. Armstrong, S. Douglas, R Rowan, A. A. Smith, J. S. Harris, J. S. Tweddle.

UNIVERSITY OF MANITOBA.

M.D.—A. D. Carscallen, J. E. Gemmel, C. J. Large, V. E. Latimer, J. P. McIntyre, A. Sibbitt. *C.M.*—J. E. Gemmel, V. E. Latimer, C. J. Large. *M.D. (ad eundem gradum)*—R. J. Blanchard, M. B., C.M, (Edin.); J. W. Good, M.B. (Tor.); H. A. Higginson, M.D., C. M. (McFill); and Drs. Patterson, O'Reilly, Higginson and McArthur took the degree of C.M. *(ad eundem gradum.)*

Scholarships, etc.—Final—1. University Scholarship and Lafferty Gold Medal, C. J. Large; 2. University Scholarship and Boyle Scholarship, J. E. Gemmel. *Primary*—1. University Scholarship J. O. Todd; 2. University Scholarship, T. J. La-

McGILL UNIVERSITY, MONTREAL, M.D., C.M.—Neil D. Gunne, Seaforth, Ont., *Holmes Gold Medalist;* William Grant Stewart, Arundel, Me., *Prizeman;* Charles Peter Bissett, River Bourgeois, N. S., *Sutherland Gold Medalist;* Robert Edward McKechnie, Winnipeg, *Prizeman in the Primary.*

Baer, D. C., Bell, J. H., Berry, R. P., Bradley, W. J., Cameron, J. J., Carter, E. H., Castleman, A. L., Chalmers, W. W., Clouston, J. R., Conroy, C. P., Desmond, F. J., Dewar, C. P., Ferguson, W. D. T., Fritz, H. D., Goodwin, W. W., Gunne, N. D., Haentschel, C. W., Hewitt, J., Hoare, C. W., Haldimand, A. W., Hopkins, H. J., Hubbard, O. H., Kennedy, J. H., Kenney, F. L., Kincaid, R. M., Kirkpatrick, E. A., Lang, W. M., Metcalfe, F. T., Moffatt, R. D., Morrow, C., McDonell, A. E. J. McDougall, D. S., McCarthy, J. G., McFarlane, M. A., McKinnon, G. W., McLennan, D., McMartin, D. R., Orr, A. E., Orr, J. E., Park, P. C., Pearman, H. V., Potts, J. M., Quirk, E. L., Robertson, A. G., Stewart, A. D., Stewart, W. G., Springle, J. A., Thompson, J. H., Weagant, A. A., Westley, R. A., Wetmore, F. H., Woodruff, T. A., Wylde, C. F., Young, H. E.

THE LOMB PRIZE ESSAYS.—Mr. Henry Lomb, of Rochester, N. Y., offers, through the American Public Health Association, two prizes for the current year, on the following subjects: "Practical Sanitary and Economic Cooking Adapted to Persons of Moderate and Small Means." First prize, $500; second prize, $200. Conditions: The arrangement of the essay will be left to the discretion of the author. They are, however, expected to cover, in the broadest and most specific manner, methods of cooking as well as carefully prepared recipes, for three classes,—(1) those of moderate means; (2) those of small means; (3) those who may be called poor. For each of these classes, recipes for three meals a day for several days in succession should be given, each meal to meet the requirements of the body, and to vary as much as possible from day to day. Formulas for at least twelve dinners, to be carried to the place of work, and mostly eaten cold, to be given. Healthfulness, practical arrangement, low cost, and palatableness should be combined considerations. The object of this work is for the information of the housewife, to whose requirements the average cook-book is ill adapted, as well as to bring to her attention healthful and economic methods and recipes. All essays written for the above prizes must be in the hands of the Secretary, Dr. Irving A. Watson, Concord, N. H., on or before Sept. 15, 1888. Each essay must bear a motto, and have accompanying it a securely sealed envelope containing the author's name and address, with the same motto upon the outside of the envelope. All papers must be in the English language.

THE ADDITION OF AN ACID TO BICHLORIDE SOLUTIONS TO INCREASE THEIR ANTISEPTIC POWER.—Dr. Laplace (*Med. Rec.*) has made a number of experiments to determine whether sublimate dressings such as gauze, cotton, rollers, etc., were really aseptic and antiseptic. He found that while most of the dressings were aseptic, none of them exerted positive antiseptic powers. It has been proven by numerous investigations that when the sublimate solution is brought in contact with albuminous fluids, an insoluble albuminate of mercury results, which is entirely devoid of antiseptic properties. This takes place when sublimate dressings are applied to the body, and explains the poor results obtained from their use in some cases. Laplace found that the addition of an acid to the sublimate will prevent this coagulation. He especially recommends tartaric acid.

The following are his conclusions:

1. Acid solutions of corrosive sublimate exert the full effect of the drug, even in albuminous fluids. 2. The conbination of an acid with the sublimate increases its antiseptic powers, so that weaker solutions are required. 3. The acid sublimate dressing does not interfere with the employment of other measures—caustics, iodoform, etc. 4. The acid sublimate solution and gauze gives

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more satisfactory results in the laboratory and in practice than other disinfectants. 5. The wounds are not irritated.

The solution employed by Laplace is the following:

Hydrarg. bichlor.,	1.0
Acid tartaric,	5.0
Aq. destil.,	1000.0

Gauze, cotton, etc., are soaked for two hours in a solution of

Hydrarg. bichlor.,	5.0
Acid tartaric,	20.0
Aq. destil.,	1000.0

The author obtained very satisfactory results with this dressing in the treatment of suppurating wounds. The fetor rapidly disappeared, granulation was established, and the dressing remained sterile, in one case for six days.

ANOTHER NEW HYPNOTIC—SULPHONAL.—This is the name given by the manufacturers of "diethylsulphondimethylmethan" to a substance produced by the union of ethylmercaptan with acetone. It was discovered by Prof. Bauman, of Freiburg. Prof. Kast, of Freiburg, has experimented with it on a considerable number of patients, and he says *(Berlin Klin. Woch.)* that in his opinion it is a very valuable addition to our materia medica. It is a crystallizable substance, forming large colorless tables, possessing neither taste or smell. It is soluble in water, about 18 parts of boiling and 100 parts of cold; in alcohol and alcoholic ether it is freely soluble, but is not affected by acids or alkalies. From 30 to 60 grains may be taken by adults without producing any unpleasant symptoms or after effects. Usually the patient sinks into a quiet slumber in from a half, to two hours, and this state lasts from five to eight hours. In a few cases the patient complained of feeling tired and sleepy next day, but usually no after effects were noticeable. It was most efficacious in insomnia in nervous subjects, the dose being about 30 grains. The rate of the pulse, blood pressure, temperature and digestion were not at all affected by medicinal doses.

TEMPERANCE OF JEWS.—Dr. Norman Kerr, the celebrated writer on the physiological aspects of intemperance, in referring to the above, says: "The temperance of the Jews is proverbial. Extensive as my professional intercourse has been with them, I have never been consulted for inebriety in the person of a Jew, while my advice has been sought for this complaint by a very large number of Christians. In my opinion, their general freedom from inebriety, in almost every clime and under almost all conditions (there are very few exceptions to this rule), is as much due to racial as to hygienic, and more to racial than to religious influences."

FORMULA FOR DYSMENORRHŒA.—Dr. Goubert *(Am. Jour. Med. Sciences)* recommends the following:—

R.—Iodoform,	gr. ij.
Ext. of belladonna,	gr. ss.
Asafœtida,	gr. iv.

M. ft. pil. j. Six of these pills are given daily, and from six to ten days before the appearance of menstruation.

STUDY OF OBJECTS.—Examination.—Professor: "How many legs have insects?"

Candidate: "65 per cent. of insects have no legs at all, 11 per cent. have one, 14 per cent. two or three, 10 per cent. four or five, but one six."

Professor: "How in the world did you get this answer?"

Candidate: "By carefully examining the collection belonging to the University."—*Fliegende Blat.*

A MICHIGAN doctor, says the *Medical Age*, paralyzed a company one very wet and slippery night by stating, in reply to the question whether he had come afoot, that he had not, but had adopted the same mode of locomotion that Baalam employed centuries ago.

BY referring to the advertisement of Fairchild Bros. & Foster, on our last page, it will be seen that so great an authority as Dr. Murrell, F. R. C. P., speaks of their Pepsin in the highest terms. The profession here are generally agreed that their Pepsin product is up to the highest standard of excellence.

BRITISH DIPLOMAS.—Dr. P. D. Goldsmith (Vict. Univ.), of Campbellford, Ont., has recently passed the L. R. C. P. London examination, as also that of the Society of Apothecaries.

J. H. Stewart was fined $100 and costs, May 18th, at the Toronto Police Court, for practising

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medicine without a license. His wife who was charged with a violation of the Ontario Medical Act was discharged.

REMITTANCES to this journal should be addressed, Charles Sheard, M.D., 314 Jarvis Street, Toronto. If otherwise addressed they are late in being acknowledged.

DR. THOMAS KEITH, the celebrated gynæcologist, has removed to London.

Books and Pamphlets.

THE SURGICAL DISEASES OF THE GENITO-URINARY ORGANS, INCLUDING SYPHILIS, by E. L. Keyes, A.M., M.D., Professor of Genito-Urinary Surgery, Syphilology and Dermatology in Bellevue Hospital Medical College, etc. D Appleton & Co., New York. W. J. Gage & Co., Toronto. Price $5.

Professor Keyes has now become so well and favourably known in connection with genito-urinary surgery, that any work bearing his name is sufficiently recommended, and we are sure this new revision of Van-Buren and Keyes' text book is quite up to any work upon the same subject heretofore produced. We can recommend it highly because it is a complete treatise of the diseases of the genito-urinary system, including syphilis, and further, on account of the able and practical manner with which the subject is handled. Any one who will carefully read the pages of this work will find his time has been well spent.

A TREATISE ON DISLOCATIONS. By Lewis A. Stimson, B. A., M. D., Professor of Clinical Surgery, in the University of New York, etc., etc. One hundred and sixty-three illustrations. Pp. 541. Philadelphia: Lea, Bros. & Co. Toronto: Hart & Co. Cloth, $3.00; leather $4.00.

This volume on dislocations is a companion or second volume to a treatise on fractures, by the same author, published nearly five years ago. This long time has been spent by the author in collecting and arranging from all available sources material for the work. The work on Fractures has taken a place as authoritative, and we have no doubt that the present volume will be equally well received. It is indeed all that can be desired, for the use of the practitioner, and we can heartily recommend it to the profession as a work that will become a classic on the subject under consideration.

ASEPTIC AND ANTISEPTIC SURGERY—A practical treatise for the use of Students and the General Practitioner, by Arpad. G. Gerster, M.D., Prof. Surgery at the New York Polyclinic, Visiting Surgeon to the Mount Sinai Hospital, and the German Hospital, New York. Illustrated with two hundred and forty-eight engravings and three chromo-lithographic plates. D. Appleton & Co., New York. W. J. Gage & Co., Toronto.

This is a clear exposition of the principles of antiseptic surgery, where the steps of the various operations in surgery are concisely given; unfortunately the plates are mostly photographic and hence not so distinct as they might be. We can recommend the work as being up to the day and practical.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE. For the Use of Physicians and Students By James Tyson, M. D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania. Sixth Edition, revised and corrected. With a colored plate and wood engravings. Pp. 253. Philadelphia: P. Blakiston, Son & Co. 1888. Toronto: Williamson & Co.

This work which has reached its sixth edition is worthy of all commendation. It has been, as the author says, rather cut down as to its contents than enlarged, and considerable matter which appeared in the last edition has been cancelled as being no longer required. The most important additions are in the way of new test for sugar by phenyl-hydrazin hydrochlorate, and alpha naphthol and thymol. Dr. Tyson's name has become like a household word in the domain of urinology, so that any further favorable notice of this most excellent work is unnecessary.

THEINE IN THE TREATMENT OF NEURALGIA. Being a physiological contribution to the therapeutics of pain. By Thomas J. Mays, M. D., Professor of Diseases of the Chest, in the Philadelphia Polyclinic, etc. Pp. 84. Philadelphia: P. Blakiston, Son & Co. Toronto: Williamson & Co. 1888.

This is a reprint of a contribution to the *Polyclinic*, Sept., 1887. The therapeutics of pain are well treated of by a reliable man, and the physiological action of Theine and its special therapeutical indications are well made out.

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THE CANADA LANCET.

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Original Communications.

OPERATION FOR CLOSING URETHRO-RECTAL FISTULÆ*

BY DR. WYETH, NEW YORK.

I desire to lay before you the brief history of a case of *urethro-rectal fistula.*

CASE I.—J. S., native of Texas, 27 years old, merchant, came under my care in August, 1887. He came of healthy stock, and had had no sickness of a serious character until 1883, when symptoms of vesical calculus supervened, and for which a left lateral lithotomy was done in August, 1886. The stone removed was reported to be the size of a hen's egg.

A urethro-perineal fistula remained after this operation, and from August, 1886, to August, 1887, four attempts were made to close this opening without success. In the last of these operations a drainage tube about one and one-half inches in length was inserted in the perineal opening and left with the deep end in the urethra. This tube, about three-sixteenths of an inch in diameter, was lost sight of and the doctor and patient supposed it had escaped externally and had been thrown away with the dressings. The last operation was followed by considerable pain which was persistent. In the course of three months an abscess opened into the rectum through the anterior wall, and the urine began to flow freely in this new channel. About this time the perineal opening was closed and an abscess formed in each tunica vaginalis. These were incised and when I first saw the patient were entirely healed. At this date (August, 1887) nearly all of the urine passed through the rectum. The patient suffered greatly, and had to be kept constantly under the influence of opium.

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An examination per rectum revealed the presence of a stone, the end of which was on a level with the anterior surface of the rectum, about one inch beyond the anal aperture. The opening was slightly dilated and the stone was removed through the rectum, by means of a strong forceps.

It had formed in and upon the drainage tube, and is seen in natural size in Fig. 1. After consultation with Dr. Edward L. Keyes it was

FIG. 1. Calculus formed on a piece of drainage-tube as a nucleus. (Actual size.)

determined to prepare the patient for operation, which was done, and on Sept. 13, 1887, I operated as follows:

The patient, in ether narcosis, was placed in the Sim's position and a large Sim's vaginal speculum was introduced. The opening through the anterior wall of the rectum measured three-quarters of an inch in length, with an irregular width of from

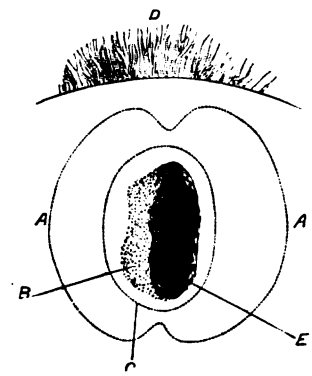

FIG. 2. Showing the anterior wall of the rectum, and opening into it at *E*, a sinus from the membranous and prostatic urethra. *B* Cul-de-sac, which undermined the right margin of the opening. *A A* Line of incision along which the flaps were dissected as far inward as *C*. For their nutrition the two lateral flaps depended upon the limit between the dotted line *C* and the margins of the opening *E*. *D* the perineum.

one-eighth to one-fourth of an inch. It led directly into the urethra near the junction of the membranous and prostatic portions. The floor of the urethra was entirely destroyed The right edge (patient's right) of the opening was seen to be undermined, as shown by the dotted surface *B*, in Fig. 2.

I determined to attempt the formation of a new

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floor to the urethra by turning the mucous membrane of the rectum into this position. Two crescentic incisions were made, as shown at *A*, *A*, Fig. 2, being about parallel with the edges of the opening but approaching more closely at its upper and lower angles. These incisions went deep into the wall of the rectum and included the mucous and muscular layers. The two lateral flaps were dissected up the left to within an eighth of an inch of the edge of the opening; the right could not be carried so far on account of the pocket which undermined this side.

The flaps were now turned toward each other and their raw edges made to meet in the middle line, while the raw surfaces looked into the rectum and the mucous surfaces into the urethra (Fig. 3). Sutures of silk-worm gut were inserted, as

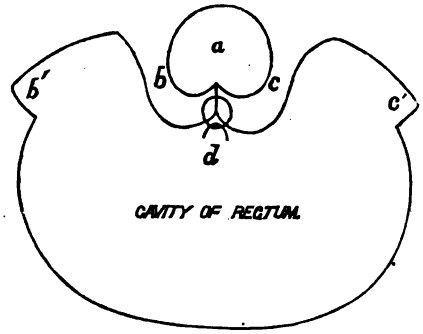

FIG. 3. (Schematic.) Transverse section through the urethra and rectum, showing the method by which the flaps were turned from the mucous membrane of the rectum to make the floor of the urethra. *a* Urethra. *b* The right flap dissected from *b*. *c* The left flap from *c'*. *d* The silk-worm gut suture in position (not entering the cavity of the urethra).

shown in Fig. 3, at *D*. These sutures were about three-sixteenths of an inch apart, and were so inserted that they did not penetrate to the cavity of the urethra. On account of the thinness of the flap at one point I was compelled to pass one suture into the urethra.

A Nelaton's catheter was carried through the meatus and urethra into the bladder, and through this the urine ran out at intervals. Whenever the urine accumulated enough to create a desire to expel it, about six ounces of Thiersch's solution were thrown in to dilute it, and when this with the normal contents of the bladder were evacuated, the same quantity was thrown in again and immediately expelled. In this way the wound was kept practically free from irritation by the urine. Divulsion of the sphincter ani removed all danger or annoyance from spasm of this organ. The bowels were kept quiet for nine days, and liquid diet was enforced. The patient had been placed on liquid diet for ten days prior to the operation.

The sutures were left *in situ*. The wound healed promptly and the patient left for his home in three weeks after the operation. In April, 1888, seven months later, he returned complaining of slight irritation in the rectum, and said he thought at rare intervals a few drops of water escaped into the bowel. On examination three of the sutures were still in position, but no opening could by most careful search be discovered. The sutures were removed and in a few days the patient was discharged.

IDIOPATHIC GLOSSITIS.*

BY DR. HUNT, CLARKSBURG, ONT.

It is generally conceded that Idiopathic Glossitis is a disease of very infrequent occurrence. During a practice of twenty years I have met but with one case, and in the current medical literature of that period I have not seen a single case recorded. Writers of medical and surgical works dismiss the subject after brief notice, but all agree that it is a rare though very formidable affliction. I have, therefore, considered that a report of my case might not be uninteresting to this Association.

The patient was a robust, florid looking farmer, thirty-five years of age, of good family history. He had taken cold and at first complained of soreness of the throat and root of the tongue. The first physician in attendance diagnosed quinsy, and treated him accordingly. In three or four days, as he was decidedly worse, he sent for another doctor whom an officious neighbour recommended as the possessor of a specific for quinsy. He came, he saw, he diagnosed, what by that time was very easily done, inflammation of the tongue, and promised speedy relief. On visiting the patient the following day he pronounced him to be dying. Said, alas! he was too late in being called in. That to open the windpipe was now useless, as his lungs had become too much congested to

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afford him a chance of recovery by the operation, and to lance the tongue was a dangerous proceeding, as fatal hæmorrhage might occur. Giving the man a few hours to live he left him to his fate.

The patient and his friends accepted the situation; but, at the urgent solicitation of another officious neighbour, I was sent for and arrived about 12 o'clock p.m., the same day. I found the patient sitting on a chair by the side of his bed, his face was flushed and turgid, his eyes protruding, respiration hurried and difficult, deglutition impossible, and with a finger of each hand between his teeth to prevent them pressing on the inflamed tongue, and to enable him to get sufficiency of air to breathe. The tongue filled nearly the whole cavity of the mouth, the tip protruding between the teeth. The sub-maxillary and sub-lingual glands and tonsils were tumefied. The saliva appeared to be profusely secreted, and from the inability of the patient to remove it, it was continually dribbling away. He had neither slept nor taken any food for eight days, and his strength was nearly exhausted.

I passed a bistoury on the flat over the dorsum of the tongue, as far back as I could, and then turning it on its edge I made two deep incisions on each side of the raphe. Blood flowed freely, but no pus was discharged. The patient, in a short time, experienced some relief, was able to swallow a small quantity of water and articulate more distinctly. His respiration became easier, and he slept for a few minutes at a time. I remained with him all night administering, at intervals, enemata of egg, milk and brandy, and I left him at 7 o'clock in the morning somewhat improved, but still having much difficulty in swallowing, and being obliged to gargle frequently to get rid of mucus which was very abundant and tenacious.

About 11 o'clock a. m., I was sent for, the messenger saying that during the morning he had discharged some bad smelling matter from his mouth and shortly afterwards appeared to be suffocating. I found him gasping for breath, cyanosed, pulse 140 and feeble, skin covered with clammy perspiration. I proposed to open the air passage, but his friends objected, saying that he was dying and should be allowed to die in peace. I replied that I would hold them responsible for his death unless they allowed me to do as I wished. This threat had the desired effect and they consented. I decided on laryngotomy as being the simplest and speediest operation, time being of the utmost consequence. Not having a tube with me I filed off the beak of a silver catheter and inserted it instead. He immediately began to rally, regained his natural color, and in half an hour was sitting up in bed drinking beef tea and asserting, as well as his tongue would allow him, that the tube was a grand institution. He slept at intervals during the night, and took beef tea fairly well. In the morning I plugged the tube while he was sleeping, and finding that it did not interfere with his breathing I removed it. He continued to improve so much for two days, and the roads being very bad, I left him in charge of the first physician called in, with the understanding that I was to have a report of his condition every day by mail.

He was progressing favorably. The swelling of the tongue was gradually abating, and he could take nourishment with less difficulty, till the third day after I had last seem him, when I was again sent for. I found him labouring for breath, unable to lie down, his pulse indicating great exhaustion. I immediately introduced a tube into the larynx through the old opening, but he died as soon as I inserted it.

I was informed that he had felt better than usual that morning, and had walked from his bedroom to the kitchen adjoining it which opened directly outside. After remaining there for an hour he returned to his room, which, in the meantime, had been scrubbed and was still damp. Soon after his breathing became impeded, and he gradually passed into the state in which I found him on my arrival. For some unexplained reason I was not sent for until six or eight hours after his relapse, and no attempt was made to re-introduce the tube till I arrived.

I must confess I was exceedingly disappointed at the unexpected termination of this case, as, after he had made such good progress towards recovery, I had felt confident that his life would be preserved.

In conclusion, I beg leave to make a few remarks suggested by this case. 1st. Why should Idiopathic Glossitis be of such rare occurrence when, from the large blood supply, active habits, and exposed situation of the tongue it might

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naturally be inferred that it would be especially liable to inflammatory action? I must confess I am unprepared with an answer to this question, and have put it in order to elicit the views of this Association. 2nd. From the infrequency of the disease, and the implication of the tonsils and pillars of the pharynx, it is liable, in the early stage, to be mistaken for tonsillitis. 3rd. It is of the utmost importance to early administer nourishment, either per rectum, or by means of a nasal tube, as the disease makes very heavy demands on the vital powers. I think, however, alimentation through nasal tube would be almost impracticable on account of the preternatural irritability of the parts. Early and deep scarifications should be made in order to avert impending suffocation, and, if relief by this means is not speedily obtained, no time should be lost in performing either laryngotomy or tracheotomy, as the exigency of the case might demand, as it allays the fearful apprehension of the patient that he is going to smother, and prevents congestion of the lungs. Finally, having succeeded in carrying the patient through his difficulties, we should continue to carefully watch him till recovery is assured, and not leave to any one else so important a charge, as I feel inclined to believe that had he been prevented from returning to a freshly scrubbed room, or had the tube been re-introduced immediately, a fatal result might have been prevented.

URETHRAL DISCHARGES.*

BY FRED. LE M. GRASETT, M.D., ETC.,
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Mr. President and Gentlemen,—I feel a considerable amount of diffidence in bringing before this Association the subject of "Urethral Discharges," especially as the surgical field is such a rich and fertile one, and the curt manner in which some of these discharges are treated in many text books, suggests to me that I have chosen either a barren portion on which to dilate, or at any rate that the subject is an undesirable if not an undeserving one. All I know, is, that the subject interests me. I give you what I have found of use to me in managing these cases, and I hope that, as this subject falls outside the experience of no practitioner of medicine, the discussion of it by such a learned Association as this may result in good, as it is especially discussion that is desired, and that the paper be not an exhaustive essay, but rather short suggestions of points for discussion.

The first of the urethral discharges that claims attention, is also the commonest, that which is the result of catarrhal inflammation, affecting the epithelium covered surface of the urethra—Urethritis. It is met with under two forms, at least as far as treatment and apparent cause are concerned. The simpler, due to contact with some leucorrhœal discharge in the woman, or brought on by excessive sexual intercourse, is usually much less severe, much more manageable than the specific form. The other, the result of the application of a poison generated by and acquired from the female, miscalled gonorrhœa, vulgarly called common clap, or, as the French say, chaudepisse, has many points of interest. Now, whether the opinion held by Neissir and others is correct, that the virus that produces it is a micrococcus, to which they give the name gonococcus, or is likely to be ultimately shown to be correct, it cannot be said as yet to be anything like proved. Capable observers in this comparatively new branch do not appear to be agreed as to the part these organisms play, in exciting this form of urethritis.

The probability seems to be, that the constancy with which micrococci are found in gonorrhœal pus, suggests strongly that they are in some way at least connected with the development of the disease. Yet against this, on the other hand, competent observers have failed to excite a gonorrhœa in healthy persons by the inoculation of the urethra with cultures of these micrococci. In the present transitional state of our knowledge, as to the exact causative value, in many affections, to be attached to micrococci and other similar germs, I prefer not to dwell on this further, except to say, that from the practical side it has not received that confirmation that one would wish. I refer to an article in the *Brit. Med. Jour.* in 1880, by Watson Cheyne, in which he pointed out, that in the pus discharged during an attack of gonorrhœa, living microscopic organisms are invariably found, and argues therefrom the essentially parasitic origin of the disease, and suggests a new method of treatment based on this, viz., the use of bougies of cacao butter, combined with a powerful antiseptic—preferably iodoform and eucalyptus oil. The

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bougie being preferred to solutions, in order that the antiseptic may stand a stronger chance of being more completely brought into contact with the inflamed surface. I have been unable to find in such journals as I have read, any strong endorsation of this plan. My experience of it is not sufficient to allow me to pass any opinion upon it. I can only say, with my predilection, I wish it were more effectual than it seems to be, as a treatment so easy and rational deserves to be.

In the treatment, we can find an ample field for discussion. As a student, I recollect well how much some used to praise the abortive treatment, effected by the internal use of balsam of copaiba and cubebs, in large and frequent doses, and at the same time the injection of nitrate of silver, or other similar strong caustic fluid, repeated at short intervals. Indeed, one well-known surgeon at the Infirmary, whose eminence in this direction was undisputed, was vulgarly called "The perfect cure in three days."

Few surgeons would now-a-days, I think, undertake the abortive treatment, even at the urgent request of the patient, and his assurance that all risk was his own; for except in mild cases, it frequently does much harm.

The expectant plan has had at times strong upholders, perhaps has some still. I do not find, however, that any of the advocates of this plan have ever brought forward an array of facts to prove that the disease if left to itself will get well in a short time; certainly the majority of those who have studied this disease at all closely, have come to a different conclusion.

What should be embraced in a safe and effectual treatment. Several factors make it up.

(a) Rest, if possible, even to lying in bed. Now few of the patients coming to a dispensary or hospital to be treated, are in a position to do this; they are compelled to go about their work. Even in private practice, a large proportion show the greatest unwillingness to lay themselves up, fearing that the knowledge of their disease may be thereby suspected, if it does not actually leak out.

(b) Insisting on great cleanliness, obtained in any way; the patient to frequently pass urine, so as to cleanse the urethra; injecting warm water; frequent soaking of the penis in warm water. Tell him also not to bandage or tie up his penis in an unnatural position, but allow it to hang, and thus permit the discharge to run freely out of the urethra, the mouth of which should not be firmly pasted up, as it so often is, with a piece of lint; but left open, or at most, having a piece of salicylic or borated absorbent wool lightly placed over it, or in a water-proof bag secured over it.

(c) Make his diet as simple as possible; pure milk diet, if you can get the patient to conform to it; at any rate, excluding all irritating and stimulating articles—fluid and solid, giving also diluents and alkalies freely, to make the urine as little irritating as possible.

(d) Internally, I have used for a long time, the liquor santal flavæ et cubebs of Hewlett, with great satisfaction; it is the most pleasant of an unpleasant family of drugs, and I deem it most useful.

Injections: what is their place and value in the treatment of this state. Certainly in the acute stage they are not beneficial, and I find them positively harmful. A good many cases that I see, come to me after they have treated themselves for a time on prescriptions and advice of a friend, or have been acting under the advice of a chemist. These usually use injections from an early date, often I feel satisfied with bad effects increasing the violence of the complaint and aiding in the extension to the deeper parts of the urinary tract, or producing one or more of the so-called complications or sequelæ of gonorrhœa.

When the acute symptoms are passing off, and the pain has gone, though the discharge may still be muco-purulent, yet I think it is then quite judicious to use astringent injections of various kinds. The list of what has been used and proposed is a long one, and the difficulty of accurately estimating their value is not small; but the zinc salts, sulphate, sulpho-carbolate, nitrate of silver, and boracic acid are certainly most useful, with or without a sedative adjuvant.

The more chronic state of the same affection is deserving of a little attention. The passing off of all symptoms of an acute nature and the persisting of a chronic urethral discharge for a more or less lengthened period, constituting the common complaint known as gleet, is a frequent result. This discharge will often persist, in spite of pains-taking and judicious treatment on the part of the surgeon by internal and local means; at times being reduced to an amount just sufficient to glue

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the lips of the meatus together, and the expectation is that it is about to disappear; when, due to some slight cause, some error of diet, some indulgence in alcoholic liquor, it returns again almost to a state of true gonorrhœa This is an universal experience; it tries the patience of the surgeon and his patient to the uttermost.

Why should this be so? Is it because the part from which the discharge comes is so far back in the urethra, that it cannot be thoroughly reached? I think not; for if so, why then do we find strictures, the result of long continued irritation from gleet, situated invariably anterior to the triangular ligament, in the spongy portion of the urethra, probably, most frequently, just at or in front of the bulb; next, not far from the meatus, and, lastly, anywhere in the urethral spongy part. Some surgeons do talk about strictures in the membranous and prostatic portion, but if they are in the membranous they are the result of some injury to the perineum, as by fall or blow, secondarily implicating the urethral canal. The prostatic portion is never truly the seat of organic stricture. Is the explanation of this chronicity to be found in believing that the urethral mucous membrane gets into such a debilitated state, that it is constantly shedding, in an imperfect state, its superficial layer on the slightest provocation? or should we agree with Prof. Otis, and look upon its continuance as an evidence of an abnormal contraction, however slight, of the urethral calibre; in other words, that "chronic urethral discharge means stricture." I cannot go as far as this last statement. I have tested a number of cases, both with olive-pointed and ordinary bougies, and found in many cases that no sign of stricture existed. It is true, I did not use Otis' urethra-meter. Perhaps some member would give his experience with that instrument However, if stricture does exist, it should be combated by appropriate means; more than this, the very passage of large-sized steel bougies in those cases in which I said I could not find evidence of stricture, were benefited by them.

Some cases are managed only by injections, and all cases are in a measure benefited by them; but they should be mild astringent ones, frequently changed.

It is probable that the truth lies as to the pathology in this debilitated state, and that the disease begins in the mucous membrane, extends into the sub-mucous tissue, and continues there very often sufficiently long for the infiltration to become fibrous and make a stricture, while on the surface the epithelial stratum is thickened, the upper or superficial cells of this stratum are constantly dying, exfoliating and mingling with the secretion of mucus from the glands and lacunæ along the utheral tract, and this makes the discharge of chronic gleet, on this basis.

I lately noticed a paper on this, by Lecoper, of Berlin, in which he claims the method he recommends to be tried has the advantages of combining the mechanical and chemical treatments, and I propose to try it at an early date. It is as follows: nickel-plated bougies are used, slightly conical; there are six shallow grooves on them, becoming shallower near the points, before reaching which they cease. Into the grooves of these bougies he pours a paste, which hardens at the ordinary temperature of the air. He tried various forms of paste, containing as the active ingredients, iodoform, zinc, resorcin, and others, but found them all inferior to nitrate of silver; the proportion being, cacao butter, 100 parts; nitrate of silver, 1½ parts; balsam of copaiba, 2 parts. He gives careful directions as to the making of this paste, laying stress on the fact, not to employ too much heat in first melting them, else the nitrate will be reduced to silver and be inefficient. After the salve has become hardened, the bougie is smoothed with any sharp-edged tool. This bougie will readily pass down the urethra. At the temperature of the body the salve melts in one minute.

He maintains no bad effects follow; no chill or fever, or at least no more than an ordinary bougie might produce. The length of time they may be left in varies according to circumstances, but the longer it is left in the more favorable the effect on the infiltration. Improvement begins at once, and in the later stages, when there is little or no discharge from the meatus, by observing the urine in the ordinary way, the character of the discharges found in it will indicate roughly this improvement. Thus, at first, the flakes of matter will contain more pus and fewer epithelial cells; as improvement goes on, the epithelial cells increase in number and the pus cells decrease, until a few only (embedded in the epithelial cells) are seen. It is of course no new idea to employ bougies in these cases, covered with simple salve, or even covered

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with a paste which dissolves at the temperature of the body; but in the manner just described, there is to my mind a most happy combination of the chemical and mechanical.

PROSTATORRHŒA, SPERMATORRHŒA.

When several glands discharge their own peculiar secretion into a common cloaca or outlet, it is not easy to say how far the discharge from such common outlet is simple or compound in character, and if compound, to what extent. This difficulty supplies one reason why urethral discharges, other than gonorrhœa, have long been the chosen field of the empiric and the quack. With a proportion, usually very small, of truth to back them up, they delight to paint in connection with such discharges, a picture of misery and woe, the dark coloring of which has done a vast amount of injury, bodily and mental, to multitudes. This dates as far back as the time of Lallemand and his followers, the consequences of whose ill-judged writings are still every day apparent.

Prostatorrhœa as a separate and distinct discharge from the prostate gland, was first described by Dr. S. W. Gross, of Philadelphia; previously, all involuntary discharges were regarded as seminal, and even now writers appear to differ in opinion as to the nature of this discharge. It may be defined as a discharge of clear glairy mucus from the prostate, especially after the bowels or bladder relieve themselves, and more so, if straining efforts have been made. It appears probable that the discharge comes from the acini or ducts of the prostate, over-distended with fluid, due to anything which is likely to produce a determination of blood to the pelvic organs; for example, affections of the rectum, much riding on horseback, masturbation, gonorrhœa. It exists sometimes with or without inflammation of the prostate. Let me give the particulars of one case as an example.

E., single; at the age of 20 had gonorrhœa, and again at 22. It was not until some years after, that he noticed first a discharge of tenacious matter during defecation. General health fairly good. Examination of the discharge was frequently made with the microscope, probably fifty times, but nothing was found except a few columnar and squamous epithelial cells, and on two or three occasions only spermatozoa. The facts pointing to a prostatorrhœa, a large-sized bougie was passed; no stricture was made out, but no apparent benefit followed. It was then passed and left in for about five minutes; within twenty-four hours there was sense of weight and pain in the perineum, sense of fulness and desire to empty the bowel, an indication that a certain amount of prostatic inflammation had been set up. This completely and readily subsided, but the discharge still continued, and the urine showed filiform muco-purulent casts of the follicles and ducts. After a time injection was tried, with a Gross' syringe and solution of nitrate of silver. It produced no pain, only a feeling of warmth; this was repeated on three occasions, at a week's interval; the discharge at once began to lessen, and by the end of a month or so a discharge which had existed for years was completely cured. This patient also had intermittent phosphaturia, great headache at short intervals, and general debility. He has much improved in all these respects since. Tonics were administered liberally, especially iron and nux vomica.

This case serves well to illustrate this disease. It followed irritation at another part of the urethral tract. It showed little tendency to self-cure. Its nature, by the use of the microscope, was readily diagnosed. The treatment was completely successful. I could cite numerous other examples, but my purpose is served if I have shown the necessity for an accurate diagnosis, and the result of certain manner of treatment.

Spermatorrhœa, the escape of seminal fluid, is the last urethral discharge I would briefly mention. In its strict meaning, it is a slight flow of semen, more or less continuous, from the urethra, without any specific sensation; or during an excitation or defecation; but generally it is understood to embrace—nocturnal emissions during sleep, and diurnal pollutions which take place when the patient is awake, and which are excited by slight mechanical or psychical causes, and usually the erection is incomplete and the sensation diminished.

The first class, or involuntary nocturnal seminal discharges, is one variety of this affection; this frequently is but an expression of vigorous health, not feebleness or disease, provided they occur in men living a strictly continent life, and do not recur with too great frequency. They require only that the person be informed that they need give him no concern; but when they occur frequently, and are followed by depression, more or less mental

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and bodily lassitude, they are becoming abnormal or pathological, and require judicious treatment.

The local causes leading to spermatorrhœa are most frequently hyperæsthesia and chronic inflammation of the prostatic urethra, induced by masturbation, gonorrhœa, sexual excesses, and the like. But it is chiefly in the direction of treatment that I would direct attention. It is very wise in these cases to lay down strict hygienic and moral rules for the patient. Thus, avoidance of all alcohol; light, simple, nutritious diet. Direct him to empty his bladder the last thing at night, and as early in the morning as possible. Riding on horseback or over very rough roads is not advisable. The mind and body should be given sufficient exercise, to keep the thoughts away from the subject. Habitual constipation is often met with, and requires close attention. Medicinally, bromide of potash is indicated. But chiefly, remove any reflex source of irritation.

If there is an elongated prepuce, with or without phimosis, circumcision is to be performed; in one troublesome case, I found this act most speedily. If the rectum contains any irritation, it should be at once remedied—as external and internal piles, or fissure of the anus. The over-sensitive or chronically inflamed urethra, as in the cases of prostatorrhœa, is best met be the passage of the sound, and the injection of nitrate of silver.

ON THE NECESSITY FOR A MODIFICATION OF CERTAIN PHYSIOLOGICAL DOCTRINES REGARDING THE INTERRELATIONS OF NERVE AND MUSCLE.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.*

OBJECTIONS TO THIS THEORY.

1. It has been objected to this theory that "a muscle can contract when irritation is directly applied without the intervention of nerves." Now, I am not in the least disposed, or obliged, to dispute this assertion, for reasons which will appear later on. My thesis has much to gain, and nothing to lose, by the fullest admission of the independent irritability of muscular tissue. But it is exceedingly difficult, if not at present impossible, to say when a still irritable muscle has been deprived of "the intervention of its nerves." Certainly such is not the case in the experiments edited by Dr. M. Foster, in the Hand-book here tofore referred to, where the experimenter, in order to produce the ideo-muscular contraction, is to choose "a muscle which has been much exhausted by treatment or by long removal from the body," and to "wait till neither muscles nor nerve give any ordinary contraction with an electric stimulus." It cannot be held to be proven that in such a nerve-muscle there is not still remaining a force in the weakened nerve sufficient to control the equally weakened muscle.

CURARE AND THE MOTOR NERVE ENDINGS.

2. It has also been objected that, while the motor nerve endings are paralyzed by curare, the muscle does not contract, as it ought to do if this theory were correct. To this I have to reply, that if the muscles are not found contracted it is partly due to the insufficiency of the poisoning of the motor nerves, and partly to the fact that curare diminishes the contractile energy of the muscle (*a*). Nicotine and conine act precisely like curare (*b*), and in the final action of these three poisons, motor nerve paralysis and spasm, or convulsions of the muscles, occupy a prominent place. (Ringer). The special results vary, of course, in different animals. Nicotia sometimes acts like an anæsthetic (*c*); and the same is doubtless true of the others. Now, anæsthetics induce muscular relaxation by deoxydizing the blood; and nicotine is known to disorganize the red corpuscles which are the oxygen carriers. It is doubtless in this way that, under the slow action of these poisons, muscular relaxation is brought about. If death be rapidly produced by curare, convulsions occur (*d*). Here the motor nerves are paralyzed before time has been afforded for the poison to lower the irritability of the muscle, which passes into tonic or clonic spasms according to its freedom, thus behaving as it "ought" to do. Is not this a sufficient answer to the objection?

But more remains to be said. The experiments with curare are not so conclusive as to be beyond the reach of criticism. They were intended to

* Read before the Physiological Section of the Ninth International Medical Congress, held in Washington, September, 1887.

(*a*) Rosenthal, Muscles, etc., p. 254.
(*b*) Ib., p. 253.
(*c*) Stille and Maisch, p. 372.
(*d*) Stille and Maisch.

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prove the independent irritability of muscle, which is now generally an accepted fact among physiologists. M. Rosenthal asserts that these experiments (and those of Kuhne upon the sartorious muscle), do not prove this; which is equivalent to stating that it is not proved that curare paralyzes the motor nerve endings.

More direct evidence upon this point is that of Dr. Onimus, who, not long ago, "read a paper before the Academy of Medicine, Paris, upon electro-muscular contractility and the action of curare. Contrary to the opinion of M. Claude Bernard, Dr. Oninus believed that curare does not act on all parts of the motor nerves, but only on their trunks;—the nerve centres and terminal filaments being unaffected" (*a*).

In view of these authoritative opinions (and doubtless of others to which I have not access), it is evident that this objection falls to the ground and loses the weight which otherwise might attach to it.

But suppose it were established beyond doubt that the influence of the nerve were completely eliminated from the muscle in any case, and that the contractile protoplasmic masses of muscle were left wholly to themselves, and their life being not yet extinct, that they gave token of that still flickering life when comparatively rudely assailed by a shock of electricity or a corrosive or injurious agent,—what then? Such signs of irritability, elicited under such circumstances, would not militate against my thesis; for such would be the behaviour to be expected from still living protoplasm, wherever found, and would in no way disprove the contention that in the association of nerve and muscle in the organism the *role* of the nerve is to restrain or control the protoplasmic energy of the muscle so long as their mutual relations continue. For, after all, "the contraction of muscular tissue is, in fact, a limited and definite amœboid movement, in which intensity and rapidity are gained at the expense of variety" (*b*).

Indeed, I think the rational view of the situation just depicted, turns the argument the other way; and tends to show that in the joint *role* of nerve and muscle the function of the nerve is *not* to goad or stimulate the muscle to contract. To suppose this is to assign to nerve energy the relative value of the fifth wheel in the coach. Such enduring power of contractility as the muscle here exhibits evidently needs no supplementary aid from the nerve. What it really *does* need, however, is restraint, control and co-ordination for the purposes of the organization of which it is a part.

(*a*) Dr. M. Foster, Phys., p. 63.
(*b*) N.Y. *Med. Record*, 1880, p. 73.

OTHER OBJECTIONS.

A further objection has been suggested, on the ground that on a nervous impulse reaching a muscle, an electric current is generated during the period immediately preceding the contraction of the muscle; but this is an objection which is only of any force on the assumption that electricity is a stimulant. There is nothing in the action taking place here to show that the electric current is a stimulant rather than a paralyzer. There is simply a "freeing of the forces in the muscle," just as the spark of electricity frees the forces bound up in gunpowder, and so fires the train (*c*).

As for the additional plea that nerve force and muscle force are too much alike for us to consider one a paralyzing and the other a contracting agent: that is merely begging the question. Nothing whatever is known regarding the nature of these forces; and the intimate structures of nerve and muscle are so widely different as to justify the idea that the product, so to speak, of each, is equally diverse.

This theory has been objected to as a proposed addition to the inhibitory system of the text-books. This is a mistake. If the views here enunciated were adopted, the huge incubus of the present inhibitory hypothesis could be in great part swept away, to the great advantage both of physiology and therapeutics.

If it be claimed that on the cutting of the spinal cord or of a nerve trunk, the "irritation" set up at the point of cutting, or the generation of electrical current as the result of chemical change in the transverse section, act as a stimulus, and the contraction of the corresponding muscle is thus produced, such a claim must be regarded as untenable for the following reason:—The acts just referred to cannot be stimulating acts, because they are attended by precisely similar effects as are produced in the muscle by death from any cause, in which condition, it is needless to say nervous activity is not increased. The proof of

(*c*) Rosenthal, p. 250.

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this has already been sufficiently vouched for, and need not be repeated here.

Of course, I do not pretend that all difficulties vanish in the light of the theory here advocated. There are very serious, if not insurmountable, difficulties in the theory of the text-books; as the facts of the foregoing pages fully show. What I claim is, that the view here presented rests on a rational basis, and, though presented very inadequately, and under many disadvantages, has the merit of furnishing a key to many obscure phenomena in the organism, and is entitled to the fair and candid consideration of the members of our profession.

NEURASTHENIA.

Abstract of a paper by Dr. D. Clark, Medical Superintendent of the Asylum for the Insane, Toronto, read at Meeting of Ontario Medical Association, June, 1888.

We regret that we are unable to give the full text of this most valuable and instructive essay. The Dr. after graphically describing the condition of the patient suffering from this disease, which, "in medical literature has been given many names, such as cerebrasthenia, brain exhaustion, general debility, nerve starvation, 'run down,' poverty of blood, spinal irritation, and other terms 'too numerous to mention.' This disease is not to be confounded with hypochondria, hysteria, or insanity. "Each of these conditions is well marked and easily discerned by any observant physician. The morbid fears of insanity are usually definite and permanent, and accompanied by delusions, which are fixedly believed in by the insane patient. The neurasthenic, on the other hand, will tell you how unfounded are their extravagant ideas, and that they can temporarily banish these vagaries, but only to return again, like the swing of a pendulum."

He divides the neurasthenic into three classes:

1st. Those who complain of general weariness, becoming easily tired, having poor or capricious appetites, being restless, yet look fairly nourished and healthy.

2nd. Those who are evidently feeble. They are usually pale, thin, and show generally a waste of tissue and a breaking-down without any evident local disease.

3rd. This class contains those in which we find a hysterical condition and anæmia, especially in chlorotic females.

It is strongly urged however, not "to jump too hastily at conclusions lest organic and local disease should exist, the nerve symptoms only being indicative of permanent trouble which may need special and direct treatment." The writer admits having made mistakes in this direction, and has seen many cases in which such mistakes have been made.

"All these phenomena are defects, outside of brain disease, of a permanent character. The identity is not present, but the family resemblance is striking in this brood of evils which border on insanity. The want of sleep, followed by a low power of thinking in the pursuit of daily business; the weakening of the power of attention and a desire to wander from necessary thought; a shrinkage from doing a business which heretofore was a delight; becoming abnormally wearied in mind, when doing routine and ordinary work; not the natural facility to put ideas into words, and an unnaturalness of temper in respect to small matters and on small occasions; and change of manners and feelings to near friends and relatives without any just reason, are cardinal characteristics."

The Dr. goes on to say that "if there is any hereditary taint of insanity, or any serious neurosis existing, then these evidences of physical and mental deterioration are not to be lightly thought of, for any such condition may evoke from latent tendencies active diseases of an alarming character."

. . . . Nerve-starvation is not, however, *a fixed physical disease and does not affect and control abnormally the language and conduct of an individual*, as in insanity.

As to the physical condition "we often find abnormal dryness of the skin and mucous membranes, tenderness of the spine in circumscribed places, as we often find in hysterical women. Complaints of feeling heaviness of the loins and limbs; shooting pains simulating those of ataxy, irritable heart-action, best known by a tremulous, variable pulse accompanied by palpitation and it may be intermissions of beats, mostly the third and fifth beats. Convulsive movements, especially on going to sleep, which have often been mistaken for nocturnal epilepsy; localized hyper-æsthesia; sudden giving out of general or special functions;

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temporary paresis, or it may be paralysis, and *generally a feeling of profound exhaustion unaccompanied by positive pain.* Some graphically say: "They have a feeling of *goneness.*"

The treatment of such cases is summarized as follows:

1st. Rest and cheerfulness for the anæmic.

2nd. Outdoor exercise and work for the plethoric and sedative.

3rd. Fresh air, substantial food and absolute cleanliness for both classes, as a rule.

4th. No chloral, no opium, no alcohol; in short, no artificial stimulant, soporific or narcotic, of any kind. Three hours of natural sleep or rest have in them more recuperative power than nine hours of stupor or drugged quietude. Such short cuts to rest only murder natural sleep and strangle the heroic efforts of nature to come back to normal conditions. Even when these stilts are used, it must be after serious and thorough deliberation.

5th. Any employment which will have a tendency to divert the mind away from self-contemplation, and, in short, seeking relief by the law of substitution.

6th. I find the best remedies are such as the arsenites, cod liver oil, zinci phosphidi, ferri pyrophosphate, nux vomica, bromides with caffeine, zinc oxide with ergot, and such like.

These tonics and calmatives assist nature to seek again the old paths. Allow me to add a word of warning to the younger members of our profession. If sedatives, or narcotics, or stimulants are administered, it is well to mask them as much as possible. We all know their seductive power, and I have been told by dozens of victims to the alcohol, chloral or opium habit, that the first knowledge they had of the pleasurable potency of such drugs was received from the family physicians. After their visits ceased the remedy became a luxury, and the druggist was applied to for the material to inflict infinite injury to many a valuable life. My method has been to use some menstruum which would disguise the taste and smell of these drugs and to maintain a stubborn silence as to their presence in my prescriptions. This warning is given here, as there is a great temptation to use them in neurasthenic cases, in which are found insomnia, local pain, and mental distress.

Correspondence

OUR NEW YORK LETTER.

From our Own Correspondent

NEW YORK, June 23rd, 1888.

It is said that America leads all other countries in gynæcology, and the orthopædists of New York think they have reason to say that orthopædic surgery is furthest advanced here. Recently at a meeting of the orthopædic section of the Academy of Medicine, Dr. Ridlow read a paper, in which he advocated the method of treatment of hip disease pursued in England instead of that followed here. The English method might be styled the hospital or rest-in-bed treatment, while that here the mechanical or out-of-door treatment. In London patients with hip disease are put in bed, and extension applied by means of the weight and pulley, the patient being kept in bed until either a cure results, or death ends the treatment. Every orthopædist present at the meeting—except the author of the paper—agreed in strongly denouncing that treatment, Dr. Sayre going so far as to say that to 'return to it would be to go back twenty-five years to the dark ages of orthopædic surgery. Every one here uses some form of splint in hip disease, the most popular, and I think the best, being Taylor's long hip splint. Morbus coxarius being generally believed here to be tubercular, it is very essential that the patients get as much as possible into the fresh air and not become bed-ridden. I will not attempt to describe the Taylor splint or its mode of application, as it would take too long, and the description can be seen in any book on the subject. What is obtained from the splint is that the joint is kept at rest while extension is being made continuously, and the weight of the body removed from the foot to the perinæum the patient enabled to run around, go to school, with very little inconvenience, and without crutches. In the acute stage there usually exists, before the splint has been applied, some flexion of the thigh due to reflex muscular spasm. As long as this exists the patient is kept in bed with leg on an incline plane, and by means of the splint the extension is made in the line of deformity. A few weeks will generally suffice to overcome the flexion, and as soon as this is done the patient gets out of bed and should be out of doors

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as much as possible. Pain generally disappears with the application of the splint. The splint is worn day and night, and only taken off to renew the adhesive plaster on thigh and leg—usually once a month, or less frequently. Should abscesses develop, as in a proportion of cases they will, two courses, directly opposite, are advised, Dr. Sayre saying to open the abscess, scrape, irrigate and dress it antiseptically; Dr. Shaffer on the other hand advising to leave the abscess alone and allow it to open spontaneously unless sepsis be produced, or it is about to open in a bad place. About 2% of these abscesses disappear—are absorbed. The splint is finally removed only when all reflex muscular spasm is gone, and the motions free, or anchylosis result. Tonics, cod liver oil are given, and the general health attended to. The mechanical treatment does everything that the weight and pulley does with the tremendous advantage of giving the patient the benefit of exercise out of doors. I have seen numbers of these children running around with their splints on, fat and red cheeked—very few of them becoming cachectic and having amyloid livers and kidneys. The prognosis is generally good as regards recovery, a great many recover-recovering with good motion, though anchylosis is a frequent result. Dr. Sayre has the splint so arranged that the joint is not kept absolutely at rest. Dr. Gibney keeps the joint perfectly quiet, and Dr. Shaffer allows a very little motion. They all have the same end in view, viz: prevention of anchylosis; but Dr. Sayre claims that if the joint be kept for a long time immovable anchylosis will ensue. Dr. Gibney claiming anchylosis will be prevented by keeping the joint at rest, and that anchylosis is more to be feared where the slightest motion is allowed as it keeps up the inflammation.

In lateral curvature of the spine, Dr. Shaffer uses a brace for support and to correct the deformity and keep it corrected. Together with this he employs some gymnastic exercises. Dr. Gibney relies entirely on gymnastic exercise, having the class meet together at certain hours, and he drills them in the exercises which they are to go through at home.

During the past year, Dr. W. T. Bull, surgeon at the New York Hospital, did three operations for cancer of the larynx, one being a unilateral, and the other two complete extirpations of the larynx. In all three cases the operation was successful. Intubation of the larynx in diphtheritic croup is becoming more popular here, the statistics improving as more cases are reported. The statistics now are better than those of tracheotomy.

CANUCK.

Reports of Societies.

ONTARIO MEDICAL ASSOCIATION.

The eighth annual meeting of the above Association was held in the theatre of the Normal School, Toronto, on the 13th and 14th ult., Dr. Rosebrugh, of Hamilton, President, in the chair; Dr. J. E. White, of Toronto, Secretary. The attendance was large and representative. Drs. Wyeth, Rice, Fox and Horning, of New York, Dr. Johnson, of Danville, Ky., Sir James Grant, of Ottawa, and Dr. Gardner, of Montreal, were present as delegates and invited guests. They were introduced to the meeting and Drs. Rice, Fox, Gardner and Johnson made brief speeches.

THE MEDICAL LIBRARY.

Dr. Graham, of Toronto, presented the report of the committee appointed to draft a scheme for the foundation of a library for the Association. The committee had obtained a grant of $250 from the Toronto Medical Association, and the use of a room from the Ontario Medical Council. They formed a stock company known as the "Ontario Library Association," with shares of $5 each, payable in five annual instalments, and had already obtained subscriptions in stock amounting to $4,000. Numerous gifts had been offered from friends in the United States, but these were cumbered by the duty on books, so unjust a tax that the committee urged the members of the Association to agitate for its removal. Although they had not canvassed for books, they had received 800 bound volumes and some 7,000 pamphlets and magazines. In closing, the report appealed to the Association individually and collectively for support.

Dr. Shaw, of Hamilton, moved, seconded by Dr. Mitchell, of Ennisville, that the report be adopted and that the Association donate $100 to the Ontario Medical Library.

Dr. Bruce Smith, of Seaforth, thought that the Association could do better than that, and moved in amendment that the gift be $150, which was seconded by Dr. Smith, of Tilsonburg, when Dr. Shaw adopted the larger sum, which was unanimously adopted. A vote of thanks was passed to the Library Committee, which was suitably acknowledged by its chairman, Dr. Graham.

On motion of Dr. McPhedran, seconded by Dr. Thorburn, a resolution sympathizing with Dr. Dupuis, of Kingston, in the trying ordeal through

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which he recently passed by the unfortunate death of his son, was adopted. Another resolution offering the Association's condolence to the family of the late Dr. Brouse, of Brockville, was also carried.

Dr. A. M. Rosebrugh, of Toronto, brought the morning session to a close by a clear exposition of the use of Electricity in uterine disease. His remarks were listened to with much attention and interest; Apostoli and his disciples having gained such splendid results from the use of this agent, that the profession generally feel a great desire for further knowledge of the practical working of the system.

Before rising for lunch the attention of the Association was called by Dr. Sheard and Dr. Richardson, to the unsatisfactory character of one of the the members. The matter was finally handed over to the committee on credentials to report on.

The President's address was next in order, and was listened to with attention. After thanking the Association for the high honor conferred upon him, the speaker referred at some length to the benefits arising from Medical Associations generally. He spoke of the vigorous strength of this Association and of the good effects it must have on the advancement of medical science in Ontario. He believed the interests of the Association and of science would be subserved by affiliation with the British Medical Association, which is perhaps the most influential scientific body in the world. In giving a history of the advance of mecical science during the past thirty years, he congratulated students of to-day upon the transformation which has taken place in the methods of, and facilities for study. He believed that the students are better now *morally*, as well as scientifically, than they were when he was a student; while empiricism is still rampant, truth and principles are generally becoming evolved out of the chaotic mass of facts known to scientists. Hospital facilities are much increased as are also laboratories and apparatus, giving the student opportunities for *real* improvement, which were unknown even a score of years ago. In his history of the old days of medicine and medical education in Toronto, he introduced the well-known and beloved names of some of the giants of those days, among them mentioning the names of Drs. Widmer, Rolph, Beaumont, King Telfer, Henick and Workman. Dr. Workman was present, and at the mention of his name there was hearty applause, which was repeated when the President said that the "Dublin method" of midwifery, which has been spoken of as a recent discovery, was practised by Dr. Workman forty years ago. The President, resuming, urged that better facilities for scientific research should be provided for students in Canada, so that it would not be necessary for them to go abroad. These facilities being provided, the higher the standard was the better, both for the student and his patients.

SURGERY.

Dr. Grasett, of Toronto, opened the discussion in Surgery with a paper on "Urethral Discharge," which appears in full in this issue of the CANADA LANCET. The discussion of the subject was taken up by Dr. McFarlane, of Toronto; Dr. Graves, of Fergus; Dr. Burt, of Paris; and Dr. Dupuis, of Kingston. In the course of his remarks, Dr. McFarlane said that it was a shame that in the schools of Ontario, pupils should not be warned of the baneful effects of vicious practices.

Dr. Johnson, of Danville, Ky., followed with a paper on "Soft Myoma," which was listened to with eager interest by all present. Diagrams were used in illustration of the subject. The reader showed that this form of uterine tumor is not one of the secondary changes of the hard myoma, due to degeneration of the newly-formed muscular fabric, comprising the ordinary fibroid, but is an entirely distinct tumor springing from a different source, having a separate histological and clinical history, and a widely different termination.

Dr. Burns, the newly elected President of the Ontario Medical Council, and Sir James Grant, of Ottawa, were at this point introduced to the meeting and were received with much applause.

Dr. Sheard read a paper on "Typhoid Fever," which will appear in a coming issue of this journal. It was discussed by Dr. Smith, of Tilsonburg; Dr. Mullin, of Hamilton; and Dr. Henderson, of Kingston.

Dr. Holmes, of Chatham, and Dr. Whiteman, of Shakespeare, read papers on "Empyema," and this brought the afternoon session to an end.

Dr. McCollum, of London, now read an excellent paper, showing the most important advances in physiology during the past year.

SUBJECTS FOR DISSECTION.

Dr. Geikie moved a resolution favoring the modification of the Anatomy Act, so as to secure a more adequate supply of anatomical material, the study of anatomy being the basis of all sound medical education.

Dr. Workman said that forty years ago, in cases of hanging, the profession always got the bodies. Dr. Richardson could perhaps explain what use was now made of them. He did not see why students should have to desecrate graveyards, or why the bodies of decent people should be taken from the hospitals, while the body of a criminal was buried within the gaol walls.

Dr. Richardson said the law requires that an executed criminal must be buried within the precincts of the gaol yard. There was no doubt the profession were deprived of bodies which legitimately belong to them. The supply of material was so limited that students would have to go abroad to seek it, much to the detriment of the Province.

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Dr. Geikie said that the demand of the profession was made in the interest of the public. The motion was carried.

Dr. Mullin opened the discussion on Medicine by an able paper on "Malaria as the cause of disease." The paper went to show that there was an undue tendency to attribute disease to malaria, and consequently a too liberal administration of anti-malarial remedies, not always harmless. The paper was discussed by Drs. Geikie, Workman, and Richardson.

Dr. C. C. Rice, of New York, read a paper on "Catarrh and other Nasal Diseases." The paper was illustrated by apparatus. Drs. Palmer and Graham, of Toronto, joined in the discussion.

The report of the Committee on Credentials was presented by the acting chairman, Dr. W. Britton. It recommended that in future the by-laws of the society dealing with the election of members be adhered to, pointing out that the loose manner of receiving members might lead to unsatisfactory results.

A discussion immediately ensued, in which the report was found fault with by some of the speakers, for not bringing in a deliverance on the case of the member accused by Dr. Sheard in the morning of being guilty of unprofessional conduct.

An amendment was carried, referring back the report to the committee for further consideration.

SECOND DAY.

The first paper read was by Dr. Hunt, of Clarksburg, which appears on another page of this issue. It was ably discussed by Dr. McPhedran, of Toronto, Dr. Brock, of Guelph, and Dr. Metherill, of Freelton, who advocated the use of ice in the treatment of the disease.

The next paper was read by Dr. C. M. Smith, of Orangeville, on "Fractures of the Humerus." The mode of treatment advocated was illustrated by the introduction to the Association of a young man whom Dr. Smith successfully treated by the aid of the splint.

Dr. Gardner, of Montreal, read a paper on "Ruptured Tubal Fœtation," which will appear in a subsequent number of this journal.

Dr. Johnston, of Danville, Kentucky, in congratulating Canada on having a scientist like Dr. Gardner, condemned strongly the use of electricity in effecting the death of the fœtus. The knife was the safest remedy.

Dr. Daniel Clark, Superintendent of the Provincial Lunatic Asylum, read an able paper on "Neurasthenia, or Nerve Diseases." An abstract appears in another column.

The Hon. G.W. Ross was introduced at this stage of the proceedings, and made one of his usual happy addresses, which was received with much applause.

Dr. Bray, of Chatham, read a report of a case of "Uterine Hydatids," which was exceedingly interesting.

Dr. McPhedran showed a very interesting case of "Splenic Leucæmia." The patient first came under observation about three months ago. About a month ago the proportion of white corpuscles to red was about 1 to 15. On that day it was about 1 to 8. An interesting point noted, is that while the number of red corpuscles is decreasing, their color is greatly improved, as is also the general condition and feelings of the patient. The spleen is considerably enlarged.

The last business before the noon adjournment was the viewing of an operating table, which was some time ago invented by Dr. O'Reilly, of the Toronto General Hospital. The feature of the table is that the head of the patient is hidden from view while the operation is going on, and in this way students need not necessarily know who the patient may be.

Dr. Thorburn's practical and interesting paper on "Life Insurance and the Relation of the Profession thereto," was next in order. It was listened to with interest and provoked a good deal of discussion.

THE COMMITTEE ON CREDENTIALS.

Dr. Britton, chairman, read the following report, which he said was ready for presentation since the morning:—(1) That it appears in the minutes that the committee of 1887 made a final report, including the names of all candidates whom they esteemed worthy of membership; (2) That the list found in the copy of the constitution and by-laws is a complete collection of the names of members up to the present time; (3) That signing the register and paying the fee do not constitute membership, the constitution having provided for election by voting; (4) That they have compared said list of members with the register of this year, and recommend the following members as eligible for membership. (Here followed a list of names.)

The committee stated that its sphere was confined to passing on the character of those asking for membership, and not to making enquiry into the status and professional conduct of those already members. The report concluded by condemning the mode of admission heretofore in vogue, warning the Association that if laws are not adhered to in the election of members, unworthy members will occasionally creep into the society.

The report was adopted.

Dr. Powell said that the adoption of the report did not dispose of the case of the member complained against on the first day of the session. He wanted to know whether he would receive the membership fee from the said member. He moved that the Committee on Credentials be re-

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tained to deal with this case and others, and bring in a report at 4 p.m.

Dr. Miller seconded the motion.

A paper on "The Diagnosis of Obscure Pelvic Ailments" was read by Dr. A. A. Macdonald, of Toronto. The views expressed were discussed by Dr. Yeomans, Mount Forest, Dr. Richardson, Dr. Hunt, Clarksburg, and the President.

Dr. J. A. Temple, of Toronto, read a paper on "The Range of Usefulness of Pessaries," which was followed by another by Dr. Irving, Kirkton, on "Puerperal Eclampsia on the use of Pilocarpin."

COMMITTEE ON ETHICS.

Dr. Barrick read the following regarding the conduct of certain members charged with violating the code:

"Your committee after carefully considering the code of ethics as at present adopted by your association, and which code is really that of the American Medical Association, have come to the conclusion that the time has arrived when the Ontario Medical Association should frame a code of ethics of its own, taking special cognizance of the following points brought under their observation:—(1) That of signs displayed outside of churches or other public places with the names of any practitioner painted on them. (2) That the practitioners employed by the various clubs be renumerated in proportion to the work done. (3) To signs displayed by practitioners outside their houses and to advertisements in the daily papers. (4) To the posting of handbills about the city by practitioners on change of residence. (5) To the advertisement of a certain dispensary for diseases of women in the city, notifying the public that advice was free, and that students were not admitted. (6) Your committee beg to recommend the appointment of a committee to formulate a code of ethics and to report at the next general meeting.

The report was read clause by clause and provoked a great deal of interesting discussion.

In the evening, Dr. J. H. Richardson read a paper on "Coroners' Inquests." After a few preliminary remarks dealing with the gravity of the question, the speaker suggested that a committee of the association should be appointed to elaborate some feasible plan for conducting investigations into suspected cases of death more in accordance with the spirit and conditions of an advanced civilization. He believed that the true functions of the coroner ought to be confined to throwing all the light possible on the cause of death, leaving matters purely legal to gentlemen of the legal profession. As to the medical witness, the speaker was more emphatic, condemning the superficial character of the evidence sometimes given touching the cause of death. The usual practice is to entrust the *post mortem* examination to some medical man known to have been acquainted with the deceased, or to have been in some way accidentally connected with him at the time of death. Too little time is afforded the witness to prepare an intelligent report, and consequently, in many cases, the ends of justice are frustrated. If he should afterwards discover that his opinion as to the cause of death was erroneous, no opportunity of putting the case right may ever arrive. A medical witness should have a thorough knowlege of medical jurisprudence, so that it is not every medical man that can be an intelligent witness of the cause of death in cases involving intricate details. As to the coroner's jury, the speaker said that he had not respect enough for it to give it serious attention. It is absurd to believe that twelve men, sometimes gathered from the most ignorant class, can advance the ends of justice. In the opinion of the speaker the time has arrived when the coroner's jury should be dispensed with.

The views given were discussed at some length by members occupying the position of coroner, such as Dr. Johnston, Dr. Bray and Dr. Duncan. The consensus of opinion was that coroners' inquests are in many cases defective.

The following committee was appointed to consider the subject and report their finding at the next annual meeting of the association:—Dr. J. H. Richardson, Toronto; Dr. Henderson, Kingston; Dr. Johnston, Toronto; Dr. C. W. Covernton, Toronto; Dr. W. Philp, Hamilton; Dr. White, Toronto; Dr. I. H. Cameron, Toronto; Dr. Duncan, Toronto, and Dr. Powell, Toronto,

The committee is enjoined by the resolution to take into consideration the whole subject of medico-legal investigation of violent or suspicious deaths, and to draft a bill embodying proposed changes, which will be submitted to the Ontario Government in the event of the bill receiving the endorsation of the association at the next meeting.

REPORT OF NOMINATING COMMITTEE.

At this stage of the meeting Dr. McPhedran was asked by the President to read the report of the nominating committee, and is as follows:—President, Dr. W. H. Henderson, Kingston; 1st Vice-President, Dr. Geikie, Toronto; 2nd Vice-President, Dr. Howitt, Guelph; 3rd Vice-President, Dr. Day, Trenton; 4th Vice-President, Dr. Aikman, Collingwood; Corresponding Secretaries, Drs. Lovitt (Ayr), Gillies (Teeswater), Trimble (Queenston), Leonard (Napanee); Secretary, Dr. J. E. White, Toronto; Treasurer, Dr. N. A. Powell, Toronto.

When the President rose to put the motion for adopting the report, Dr. Walker rose and said that he did not believe it was in the interests of the society to retain officers for a long term of years. Such a course, the speaker thought, would lead the

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association into ruts and grooves of an unhealthy character. He, therefore, proposed that Dr. White's name as Secretary be replaced by Dr. Wishart's, but with respect to the other officers he did not propose to offer any opposition.

The motion was the signal for a heated discussion on the constitution, many of the speakers maintaining that no person could be elected to an office without his name being brought before the nominating committee, and consequently, that Dr. Wishart could not be legally elected by the course proposed to be taken.

Dr. Wishart asked leave to retire from the contest, but his friends vigorously protesting, he had no other course left him but to continue in the field.

At last a motion was carried adopting the report, office by office, and by ballot.

The President did the balloting for the whole association, but when he came to declare Dr. White duly elected, a motion was made referring back the report to the committee with instructions to them to place the name of Dr. Wishart with that of Dr. White for the office of general Secretary.

The motion was carried by a vote of 29 to 15.

Dr. White then rose and, after resigning his position of Secretary, walked down from the platform to the body of the hall. The affair did not stop here, for the President began at once to call for a vote on the two candidates before the meeting. This course called forth vigorous protests from Dr. White and his friends, who declared that he was no longer a candidate. An end was put to the discussion by Dr. Richardson, who moved that Dr. White's resignation be accepted, and that he be tendered the hearty thanks of the society for his services during the last nine years.

The motion was carried, and the President declared Dr. Wishart duly elected Secretary.

On motion, Dr. White was granted an honorarium of $100 for his services during the past year.

The Treasurer's report was read, showing the annual receipts to have been $502, and that there is a balance, after all demands were met, of $227.-59.

The retiring President introduced the newly elected President to the Association, after which the meeting was declared at an end.

The next meeting will be held in Toronto, a report to that effect having been adopted.

ONTARIO MEDICAL COUNCIL.

TORONTO, June 12th, 1888.

The Medical Council met this morning in the new building, corner of Bay and Richmond Sts., the President in the chair. All the members were present, excepting Drs. McArthur and Grant.

The retiring President, Dr. Henderson, now addressed the Council. After comparing the high rank of the medical profession in Ontario with that of the United States and the other Provinces of the Dominion, he spoke of the necessity of medical men possessing not only a sound education, but that they should be characterized by culture and refinement. Circumstances have changed withing the past few years, rendering it no longer necessary that access to a practitioner's license should be easy. He believed in enforcing such tests as will secure for matriculants a preliminary education commensurate with the difficulties to be encountered in the acquirement of the profession, and the dignity afterwards to be maintained. He also believed that it will be a great gain to the profession, if medical students did not increase in numbers for a few years to come. He spoke of the necessity of having more than a mere book preparation, and of the tendency evinced by students to neglect the more practical part of their studies. He believed that, possibly, an extension of time devoted to the study of medicine may be necessary to this end, and that the Council must exercise ths most scrupulous care in guarding, not only the entrance, but the whole course of training, and, finally, the licensing examination, through the meshes of which it shall be utterly impossible for the imperfectly prepared to pass successfully. There should be more efficient clinical teaching, and the population of our large cities should warrant a sufficient supply of material for such purposes.

Dr. James Burns, of Toronto, was unanimously elected President for the current year. The new President, after thanking the Council for the honor done him, requested the Council to elect a Vice-President. Dr. Cranston was unanimously elected Vice-President.

The following are the Standing Committees for 1888-89 :

Registration Committee—Drs. Rosebrugh, Bergin, Campbell, Fenwick, Henry, Orr and Russell.

Rules and Regulations—Drs. Day, Campbell, Fowler, Orr and Williams.

Finance Committee—Drs. Henderson, Philip, Russell, Ruttan, Vernon and Wright.

Printing—Drs. Buchan, Harris, Moore, Vernon and Wright.

Education—Drs. Williams, Bergin, Buchan, Bray, Cranston, Day, Moore, Ruttan, Fenwick, Fowler, Grant, Geikie, Harris, Husband, Logan, Russell and Wright.

Executive—Drs. Burns, Bray and Rosebrugh.

Discipline—Drs. Day, Bray, Logan, Russell and Wright.

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June 13th.

Minutes of the last meeting were read and confirmed. After a number of notices of motion on various subjects, Dr. Day presented the report of the Rules and Regulations Committee. It was decided to take up the report to-morrow, in the order of business. The Treasurer's report was received, and referred to the Finance Committee.

At the afternoon session, after a number of notices of motion, it was moved by Dr. Geikie, seconded by Dr. Cranston,—That a committee, consisting of Drs. Fowler, Wright, Fenwick, Williams, and the mover and seconder of this resolution, be appointed to wait as a deputation from this Council on the Government of Ontario, to draw the attention of the Government to the pressing necessity which exists, in the interests of medical education, to have the Anatomy Act so amended, as to increase the existing facilities for the study of anatomy, as, on these being ample, depends the study of every practical branch of the profession. *Carried.* Moved by Dr. Bray, seconded by Dr. Buchan,—That two professional examinations be held, instead of one as formerly, namely, in April and October. This was referred to the Education Committee. A motion was carried congratulating Sir James Grant, K.C.M.G., M.D., on the distinguished honor conferred upon him by Her Majesty the Queen, which honor confers lustre upon the whole profession of Ontario. A suitable reply was made by Sir James Grant.

Mr. W. Webb was appointed Prosecutor for the Council for the ensuing year. Moved by Dr. Bray, seconded by Dr. Moore,—That two additional examiners be appointed. It was suggested that the students of the Western University should be recouped their travelling expenses in attending the Council examinations.

June 14th.

Moved by Dr. Ruttan, seconded by Dr. Fenwick,—That a Committee be appointed by this Council to wait upon the Minister of Finance, with a view of having the duty on surgical instruments and appliances reduced, or that they should be placed upon the free list. *Carried.* A Committee, consisting of Drs. Grant, Moore, Cranston and Logan were appointed to carry out this resolution. Moved by Dr. Henry, seconded by Dr. Orr,—That our Solicitor be instructed by this Council to prepare the Bill for an amendment to the Municipal Act on Charity, making it obligatory on Municipalities to pay for medicine and medical attendance of its poor, and that the same be brought before the Ontario Legislature at its next session, and that the Registrar be instructed to send a circular to every registered practitioner in the Province, asking their support and influence in the same.

The Education Committee made a full and interesting report on matters connected with matriculation, which was adopted without amendment. The Committee appointed to consider on what terms British registered practitioners shall be allowed to become registered and practise in Ontario, suggested that they should be treated in every respect as the Medical Council treats the medical graduates of Ontario. After much discussion, the gist of which appears in our editorial columns, the report was handed back to the special committee for re-consideration.

June 15th.

A By-law was read, passed and signed by the President, levying a tax of $1 on each and every member of the College of Physicians and Surgeons of Ontario.

After discussing several special cases from petitioners to the Council, the report of the Building Committee was presented and adopted. The same Building Committee was re-appointed. The Treasurer's report was presented, showing a balance in the Bank of Commerce of $3,004.51. The Finance Committee's report was now presented and adopted.

After the discussion of a number of letters to the Committe of Registration, and the action against a number of unlicensed practitioners, the meeting adjourned for an hour.

June 16th.

Moved by Dr. Wright, seconded by Dr. Buchan,—That the Registrar examine the credentials of candidates for examination, and make the necessary preparations for holding the examinations; and that every candidate shall file with his application a statutory declaration, that the schedule he has signed and presented is correct. After a number of presentations by the Committee on Education, which were discussed and decided upon their merits, it was decided to hold two examinations a year, and that two additional examiners be appointed. After a number of appeals being considered. The report of the Education Committee was adopted.

Selected Articles.

CORROSIVE SUBLIMATE INTERNALLY IN PUERPERAL AND OTHER SEPTICÆMIAS.

I was first led to use corrosive sublimate internally in puerperal septicæmia by observing its beneficial effects in diphtheria. The principle on which I base its use was announced in 1884, at the Medical Congress in Copenhagen, by Dr. Bouchard, who then made this statement: "Medical

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antiseptic therapeutics does not propose to kill the microbe, but only to stay its pullulation. Even slight modifications in the human infected organism may prevent the indefinite multiplication of certain microbes which have invaded it."

It was found by Roice, at Utrecht, that in any suppurating focus, microbes are found in the blood and kidneys. Dr. H. J. Garrigues, in his paper on puerperal fever in the genital tract of puerperal women, has endorsed this view by recommending, in addition to local treatment, "carbolic acid, sometimes combined with compound tinct. iodine." If we can hinder the proliferation of microbes, or render them inert, is it not as important as their elimination from the system? Dr. Macan, in his report of the Rotunda Hospital for 1883, declares that he knows nothing which will quicken the elimination of the poison from the system in hetero-genetic infection. In cases in which the source of poison is hetero-genetic I am accustomed to attempt to sterilize the air in the patient's room by means of iodine vapor. I place iodine scales in cups with a little alcohol and suspend them around the room. The fumes are not disagreeable nor very irritating, and are well borne. I have used bromine, but find it rather troublesome to the throat.

My initial dose of corrosive sublimate is $\frac{1}{4\,8}$ grain, and if any looseness supervene I diminish it to $\frac{1}{8\,8}$. If there be a tendency to too frequent dejections the bichloride can be guarded by an opiate. I have never had any sore mouth nor any unfavorable symptom except a slight relaxation of the bowels, which was relieved by diminishing the dose.

In connection with the internal use of bichloride, it may be used as injection; but I believe the cases of poisoning have been due to a too large dose. Dr. Ernst has pointed out that even 1 : 10,000 will stop the proliferation of microbes. I have used in the uterus 1 : 5,000 and in the vagina 1 : 3,000. As to Dr. W. L. Richardson's pad, I have used something more simple, which I think equally efficacious. I have the nurse wring a napkin out of lukewarm 1 : 2,000 solution and apply it moist; it gives great comfort.

There are certain cases of mercurial idiosyncrasy in which it is better to use injections of liquor sodæ chlorinat. or of permanganate of potash, the latter of which I have used several times with satisfaction.

In cases in which chill or uterine colic follows intra-uterine injections, I think crayons or suppositories of iodol are excellent. Apart from its dangerously poisonous properties, iodoform masks the lochial odor, which is a great disadvantage. Iodol, although having nearly the same per cent. of iodine, appears to be innocuous, and is excellent in suppurating surfaces.

Case 1.—Mrs. R., æt. 18, primipara, was confined by me Nov. 14, 1887, of a still-born child at term. I was obliged to use forceps on account of incompetency of uterine contractions and exhaustion of patient. There was no rupture of perineum, and but a slight unilateral laceration of cervix. She rallied well from the operation. Her lochia were very scanty from the beginning. There was no trouble with the milk secretion. She seemed to get along in a normal manner, and complained of nothing until Nov. 23, or the ninth day, when she was taken with rigor and fever. The next day I found in the morning pulse 108, temperature 103° F. Severe frontal headache, nausea and fetor of the lochia. No tympanitis nor diarrhœa, and only slight tenderness over uterus and right ovary. I ordered her 18 gr. quinine and injected into the uterus a 1 : 60 sol. carbolic acid by means of Jennison's reflux tube. A few minutes after the injection she had a severe rigor, which lasted half an hour. The next day the pulse was 100, temperature 103°. I now injected 1 : 2000 hot bichloride sol., and applied tinct. iodine over hypogastrium. A few minutes after the injection she had a bad and long rigor and became much alarmed.

The following morning her temperature had gone up to 104°, and she found it impossible to turn over on account of soreness. The injections had evidently caused shock and had not relieved her in any way; in fact she was worse. I now prescribed corrosive sublimate gr. $\frac{1}{8\,8}$ every two hours. The next morning the temperature had fallen to 100.5° and the pulse to 92. She felt much better and less sore. I now gave her a vaginal injection of 1 : 2000 bichloride daily, and continued the same internally until the sixth day of the septicæmia, when she became convalescent.

Case 2 is that of a four-month abortion in which septicæmia ensued from retained placenta. I removed it, washed out the uterus with permanganate of potash, and gave bichloride internally with beneficial effect.

Case 3.—Puerperal peritonitis of a severe type, with bad sanitary surroundings in a gypsy crowded tenement. The bichloride caused a fall of temperature and was beneficial. Recovery. My cases uniformly show a diminution of temperature after its use, and generally very quickly.*—Dr. C. W. Stevens in *Jour. Amer. Med. Assoc.*

A NEW METHOD OF TREATING POTT'S FRACTURE.

In the condition known as Pott's fracture the displacement which occurs is twofold,—viz., outwards and backwards. The first of these de-

* I will add to the above two cases of facial erysipelas, one being puerperal, in which the use of the bichloride, gr. one twenty-fourth, stopped the spreading of the disease in 24 hours; a thing I never saw before in any other treatment. It likewise dropped the fever like an antithermic.

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formities is universally recognized, but the second is often overlooked, because the ordinary method of putting up this fracture (in back and side splints) hides the displacement backwards while the apparatus is on, although it does but little to remedy it, so that when the patient begins to walk he finds that his progression is considerably impeded. An examination of the foot in such a case will show that the heel is much more prominent than it should be, that the concavity of the tendo Achillis is increased, and that the foot, if measured from the anterior margin of the lower end of the tibia to the end of the big toe, is found to be shortened.

The ordinary method of treating Pott's fracture by back and sides splints is unsatisfactory, because (*a*) considerable difficulty is found in correcting the outward displacement of the foot, necessitating constant re-arrangement of the side-splints, and (*b*) the backward displacement is not adequately affected unless so much backward pressure is made on the ankle as to incur the risk of a sore heel. To get over these difficulties Cline placed the limb on an outside splint (known as Cline's splint) and flexed the knee so as to relax the calf muscles. This method answers very well as far as the outward displacement is concerned, but has hardly any effect on the backward one.

To remedy the latter, Dr. E. W. Roughton (*Lancet*, December 10, 1887) has adopted a modification of Cline's method. The splint used is an outside splint with a foot-piece padded thickest where the foot-piece joins the other portion of the splint. Three bandages are fastened by means of safety-pins, one at the ankle passing from the instep of the splint below the ankle and turning round the heel; the second placed just above the ankle, and likewise being turned towards the heel; while the third is placed just below the knee, and turned in the opposite direction over the calf of the leg. The injured limb having the knee flexed is then laid upon the splint so that the outer edge of the foot is well supported by thick padding, and then fixed by the bandages, one being first applied above the other. The upper bandage passes backwards between the limb and the splint, then turns forward around the back of the limb and makes traction forwards, and it is then fixed by a pin, the other bandages being tightened at the same time. The middle bandage passes forward from the back of the splint between the splint and the limb, and then turns over the front of the leg and pulls backwards. The lower bandage is the most important one, and passes from before backwards between the splint and the limb, turns over the point of the heel and pulls forwards and downwards. The two lower bandages are wrapped once around the limb and splint and then fastened with safety-pins. Usually in forty-eight hours the heel bandage will require to be tightened, owing to relaxation of muscular spasm. When bruising has subsided and a sufficient amount of union taken place, this apparatus is removed and the limb put up in a silicate bandage, taking care to keep the foot well adverted and at right angles to the leg. Dr. Roughton states that he has found this method of treating Pott's fracture very simple and efficient, the foot and ankle eventually being as useful and shapely as before the accident. The great advantage of the whole bandage is that it exerts a uniform and elastic pressure in the direction required, and never produces that unfortunate result,—a sore heel.—*Therap. Gaz.*

"Homœopathic League Tracts."—Homœopathy has throughout had marks of quackery. One of the most unmistakable is its appeal from the profession to the unlearned. Discarded and discouraged in every medical society, and in all the universities of Europe, it has sunk so low as to distribute tracts calculated to impress the vulgar, in which the most ridiculous arguments are used, and the most unworthy motives are ascribed to the medical profession. We have not noticed these "Homœopathic League Tracts" in detail, and we have no intention of doing so. One is now before us, and we may take it as a sample. It is entitled "Allopathic Misconceptions of Homœopathy," and descants on the ignorance of medical men in regard to the "great" subject of homœopathy. The most honored men in the profession, and those whose names stand out conspicuously as having advanced medical science, are shown to be most hopelessly ignorant of homœopathic science, or, worse still, of that moral principle which would lead them to do it justice and to fall down and worship Hahnemann! The rank and file of the profession are represented as abettors of the immoral use of narcotics, and of any theory or mode of treatment that promises to give the doctor more to do! They adopt with uncritical haste any innovations which do not diminish their profits! The germ theory and the doctrine of the prime importance of subduing pain are adduced as illustrations of this immoral credulity of medical men. This is a pretty cool libel of the profession of Jenner and Simpson, of Parkes and Simon and Lister. Sir Joseph, who has the slight distinction of having wellnigh abolished erysipelas and gangrene—in hospitals at least,—and a few other such plagues, "is" (so the ignorant readers for whom the "Homœopathic League Tracts" are prepared are told) "now seldom spoken of." Times must be very bad with homœopathy when its advocates have to resort to such weapons as this, and to appeal to an audience that can receive such statements. The author of this tract, indeed, admits as much. He talks of the flowing tide being with the homœopaths, but says "*it seems to flow but slowly in Britain and Europe.*" So we think. And our

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homœopathic friends will find that the great public of the end of the nineteenth century is not going to accept a theory of medicine which involves the detraction of those benefactors who have done so much to relieve the suffering of their fellows. It would be as reasonable to accept a theory of chemistry that left out the work of Lavoisier and Davy, or a theory of biology that discarded Darwin and Huxley. The instinct of the public—not its knowledge—keeps it from such a fatal blunder, in spite of "Tracts" and "Leagues." This seems the last card of homœopathy, and it is a veritable confession of failure. No wonder that "the tide flows slowly" in favor of homœopathy, when it has to live by traducing medicine and the leaders of medicine. But there is another reason—the exceeding attenuation of its achievements. Here is its disparity in the conflict with true medical science. After nearly a hundred years of boasting it cannot be credited with one palpable effect. It is easy to decry the germ theory and the remedies which relieve pain. But what would homœopathy give for such fruitful and palpable additions to scientific discovery, and to the abatement of human misery and disease as are represented in chloroform and its congeners, or in the antiseptic and germicidal theories of disease, or in the great results of the allopathic treatment of hyperpyrexia. The achievements of homœopathy are, like its doses, impalpable.—*The Lancet.*

NERVE TRANSPLANTATION.—Of late we have often witnessed many successful cases of nerve suture, where, even after the lapse of many years, the peripheral extremity of a severed nerve trunk has been proved to be still capable of exercising its functions, with the restoration of motor power and of sensibility to the parts that it supplied. It is, however, a new and most encouraging departure that has been successfully carried out by Dr. Gersung, of Vienna, on the illustrious physiologist, Professor von Fleischl. Sixteen years ago Professor von Fleischl sustained a post-mortem wound in the right hand, which resulted in the loss of the terminal phalanx of the thumb. The stump became painful, and amputation higher up was succeeded by the formation of painful neuromata on the divided nerve. In spite of repeated excisions, the condition continued to recur, until two months ago Dr. Gersung decided to transplant a portion of the sciatic nerve from the rabbit and to suture its trunk to the trunk of the median nerve, and its popliteal divisions to the distal ends of the branches supplying the thumb and forefinger. The portion thus transplanted and sutured under strict antiseptic precautions measured six centimetres in length. The result so far, must be most gratifying to the subject of the operation, both as a patient and a physiologist; for he is regaining sensation in the fingers, which affords sufficient evidence that the rabbit's nerve has not only become organically united with the human, but that it is performing its function normally. Moreover—and this is a very interesting feature of the case—it has not shown the tendency to "neuromatous" degeneration which marked the original nerve. The case demonstrates the well-accepted facts that the nerves themselves, or rather their axis cylinders, are remarkably prone to regeneration, and that physiologically they are simple conductors of stimuli. It suggests, further, the possibilities of more satisfactorily dealing with other morbid "habits" of nerves—such, for instance, as facial tic,—which in many cases have resisted nerve resection and nerve stretching. Why this replacement of a portion of a nerve, which has a morbid tendency, by a portion from a healthy nerve should annul this tendency, is quite unexplained. It appears to have done so in this case, and therefore it may be inferred that the method may succeed in others which have hitherto resisted all endeavors at cure by simpler means. Lastly, the case is interesting as proving the practical identity that exists between nerves of different species of animals—a fact which anatomy has long suggested, but which has only now received physiological proof.—*Lancet.*

OLEATE OF COPPER FOR RINGWORM.—At one of the asylums for orphan boys, in this city, Dr. Blanc has recently treated twenty-seven cases of ringworm of the scalp (tinea trichophytina capitis), with oleate of copper made into an ointment with vaseline, in the following proportions:

℞.—Cupri oleat. . . . . ʒss.
Vaselin (vel lanolini). . . ℥j—M.
SIG.—Apply to scalp.

The method pursued is to wash the child's head thoroughly with soft soap and warm water, after having cut the hair as close as possible. When the head is well dried the ointment is rubbed on the scalp, over and beyond the diseased spots, and allowed to remain. The scrubbing of the head is practised but once a day, but the salve is applied night and morning. In a few of the milder cases, a salve of chrysarobin (chrysophanic acid), half a drachm to the ounce, was applied, but always immediately discontinued as soon as irritation was produced. The oleate of copper application, from its soothing and antiseptic properties, was found particularly useful in those cases which had gone on to produce kerion, and was found altogether much more serviceable than chrysarobin, which latter was finally completely discarded.

The disease, which averages in duration some six months, particularly in public institutions, was cured in this instance in a somewhat shorter time, as the following statement will show:

Began treatment of twenty-seven boys with oleate of copper, May 1, 1887.

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July 13. Discharged four cases—seventy-four days.

Aug. 24. Discharged four cases—one hundred and sixteen days.

Aug. 28. Discharged six cases—one hundred and twenty days.

Sept. 3. Discharged seven cases—one hundred and twenty-six days.

Sept. 22. Discharged three cases—one hundred and forty-five days.

Oct. 13. Discharged the last three cases—one hundred and sixty-six days.

Average duration of treatment, four months and four days. The last six were cases of kerion, in which there was inflammation of the subcutaneous tissues before the copper was applied; and the cure of one of them was retarded by a temporary removal from the institution. The disease had been communicated by two cats upon the premises, which were pets of the boys, and ceased to spread as soon as the cats were removed and the boys isolated. Epilation was not practised in any of the cases.—*N. O. Med. and Surg. Jour.*

TREATMENT OF MALIGNANT TUMORS OF THE BREAST.—In the *Glasgow Medical Journal* January, 1888; Mr. John Fagan, surgeon to the Royal Hospital and Belfast Childrens' Hospital, published a paper upon the treatment of tumors of the breast. The following is a summary of his views regarding the treatment of malignant tumors:

"1. That in many of the very worst forms of advanced painful, ulcerating scirrhus, where there is no immediate danger of death from marasmus or visceral complications, the breast may be removed with great benefit and relief to the patient.

2. That all cases of malignant growths of the breast, as soon as they are diagnosticated, should be removed at once by operation and in the thorough manner I have described.

3. That all doubtful cases should be dealt with in the same way.

4. That all recurrent growths should be removed at their earliest manifestation.

5. That all non-malignant neoplasms, as soon as they show a tendency to enlarge, and especially between the ages of twenty-five and forty years, should be removed without delay."

The following quotation from the writings of Jonathan Hutchinson bears forcibly on this point: —'Too late! too late! is the sentence written, but too legibly on three fourths of the cases of external cancer concerning which the operating surgeon is consulted. It is a most lamentable pity that it should be so; and the bitterest reflection of all is, that usually a cosiderable part of the precious time which has been wasted has been passed under professional observations and illusory treatment.'

When the doctrine of the precancerous stage shall be widely adopted, and when surgeons generally shall recognize the propriety—let me say the duty—of operation for purposes of prevention, then, and I believe not till then, shall we witness a considerable reduction in the mortality of cancer."—*Med. and Surg. Rep.*

ERGOTIN INJECTIONS.—In an article which recently appeared in the *Centralb. fur Gynäkologie*, Dr. B. Lilienfeld, of Einbeck, speaks of his experiences with ergotin used hypodermically. Inflammatory and irritative symptoms have been frequently observed to follow the hypodermic use of ergotin. Some time ago Dr. Bumm wrote an exsive treatise on the technique of ergotin injections, and recommended weak neutral solutions of the drug.

Dr. Lilienfeld's results are still more valuable, and his conclusions are not alone based upon personal observation, but also upon the experiences of his colleagues.

He holds—1. That the injection should not be made in the abdominal wall, but directly into the muscles of the back or hips. 2. That the solution should be made at the bedside, immediately before using the injection, still better if the solution be made in the syringe. The author lays great weight upon this point, as he contends that freshly-made solutions are absorbed with far greater rapidity than others. 3. The best preparation of ergotin seems to be that of Bombelon, and the strength of the solution 2 to 8 parts of water. Other preparations, however, have also been used with equally good results. 4. Sharpness and perfect cleanliness of the needle are indispensable and of great importance. 5. The injection should not be made in the skin, but the needle inserted until it may be moved freely under the cutis, and the solution then injected.

In conclusion, the author cites numerous cases which go to prove the value of the above suggestions. In one case, of a woman suffering from myoma of the uterus, one hundred and forty injections were made in four months without occasioning any irritative or inflammatory symptoms. —*Therap. Gaz.*

ACUTE PERITONITIS SUCCESSFULLY TREATED WITH SALINE PURGATIVES.—A man, aged twenty-one, was admitted into the workhouse infirmary on Jan. 6th, suffering from acute peritonitis. Three days before admission he was attacked with vomiting and pain in the abdomen; there was constipation. The abdomen was tense and tympanitic, and the abdominal respiratory movements were abolished. There was extreme tenderness above the abdomen, the legs were drawn up, the pulse small and frequent, the expression anxious. He had retention of urine, and fever. No tumor

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could be detected in the right iliac fossa; vomiting was incessant, and pain about the umbilicus greatly complained of. Dr. Suckling thought that the peritonitis was set up by typhlitis, due to fæcal retention. Opium and belladonna were first given, but the vomiting and pain continued. Then half-drachm doses of sulphate of magnesium and sulphate of sodium, with ten minims of tincture of belladonna, were given every four hours. Improvement soon followed this treatment, several liquid motions being passed. On Jan. 9th, the vomiting, pain, and tympanites had passed of, and a distinct fullness could be observed with increased resistance to pressure in the right iliac fossa. The medicine was continued, with the result that the motions became more and more solid till the 14th. He continued to complain of dragging pain in the abdomen for some time; but in about three weeks he was able to get up, and five weeks after his admission was allowed solid food. He has since had two or three slight relapses, which at once yielded to purgatives and proper dieting; and at the present time there is a distinct indurated swelling in the right iliac fossa. Dr. Suckling was of opinion that in this form of peritonitis, and in typhlitis due to fæcal retention, saline purgatives in moderate doses, and with plenty of water were of great value.—*Medical Analectic.*

THE TREATMENT OF ULCERS.—An article appeared in the *London Medical Record*, for December 15, 1887, giving interesting details of the treatment of ulcers by phosphoric acid, as shown by the experience of Dr. Grossich. By his method of treatment, he used a ten per cent. solution of pure phosphoric acid in distilled water. The ulcer is covered with a bit of lint dipped in this solution, and the dressing renewed three or four times a day. The patient for the first few minutes feels a slight burning sensation, but this soon passes, and within twenty-four or thirty-six hours the ulcer cleans, and looks better. Inflammation or eczema of the surrounding parts disappears, and all pruritus ceases. The ulcer cicatrizes rapidly, and the cicatrix is firm and healthy.

Kollischer treated tubercular affections of the joints with injections of the phosphate of lime, with great success. Dr. Grossich has also had good results with this treatment, and cites some very interesting successful cases.

The treatment by the solution of phosphoric acid was further employed in a case of tuberculous abscess of eight months' duration, and also a case of eczema marginatum which had lasted more than a year, and good results followed.

The above suggests the superiority of Horsford's Acid Phosphate as a substitute for the phosphoric acid.

The effective acidity of this preparation is about the same as the ten per cent. solution of phosphoric acid which is prescribed in the above treatment, and it may therefore be justifiably employed by the profession in the treatment of disorders of this character. It has the advantage of containing the phosphates in solution, notably the phosphate of lime. It follows, then, that all cases that require the phosphoric acid treatment can be more advantageously treated by Horsford's Acid Phosphate, and the suggestion is hereby commended to the profession.

DIET IN ALBUMINURIA.—The condition known as "large white kidney," a malady of tolerably common occurrence, is due in a large number of cases to the chronic irritation set up in the eliminatory organs by the excretion of incompletely oxidized nitrogenous matter resulting either from excess of nitrogenous material ingested or from hepatic or other visceral disease. In either case it is important to bear in mind that the object to have in view is to reduce, or at any rate not to augment, the quantity of these partially oxidized products. For this reason albuminuric patients should avoid foods containing an abundance of these extractives. Beef tea, beef extracts, and the like, are little less than poison to them, as they invariably accentuate the irritation and aggravate its results. It has been found that the systematic subcutaneous injection of these substances in guinea-pigs gave rise to the characteristic renal lesions with the usual train of symptoms, the severity of which was in direct proportion with the quantities injected.—*Med. Press and Circular.*

GALEZOWSKI'S ANTINEURALGIC FORMULA.—The Paris correspondent of the *Pharmaceutical Record*, gives the following formula:

Menthol	gr. xij
Cocaine	gr. iv
Chloral	gr. ij
Vaseline	gr. lxxv

M. Ft. Unguentum. Sig. — Apply to the painful parts, and cover with muslin.

It is said to be especially useful in periorbital pains and in ophthalmic hemicrania.—*Med. and Surg. Rep.*

STOPPAGE OF THE NATURAL FLOW OF URINE, says Ultzmann, may be caused by:—1. Occlusion of the smaller urinary tubes, as in cholera and any of the renal diseases. 2. By occlusion, twists, and turns in the urethra. Ultzmann records the case of a man, æt. 43 years, with calculus of the kidney, who suddenly developed anuria, which caused death in two weeks. The autopsy showed a cyst of the left kidney as large as a goose-egg, with obliteration of the ureter, and on the right side an enlarged kidney, with three small stones filling the ureter. 3. By a tumor of the bladder. —*Internat. klin. Rundsch.*

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THE ETIOLOGY OF TYPHOID FEVER.—In concluding a paper in the *Journal of the American Medical Association*, Dr. I. N. Davis, says: "The conclusion which follows, therefore, is that the real nature of the materies morbi of typhoid fever is but little known; that if it is not autogenetic, its origin many times is involved in impenetrable obscurity; that the organism or chemical product is as likely to assume an active form in the healthy surroundings of an isolated farm house as amid the filth of a badly neglected village or city; that constitutional proclivity, feeble health, or bodily fatigue has much to do in determining an attack. It is more than probable, also, that the poison may remain latent in the system until evoked by physical exhaustion, despondency, or other conditions of vital depression. Twenty-four to twenty-eight days constitute sufficient time for the poison to escape from the body of the sick, ripen if imperfect, and produce a toxic effect on the system of a previously healthy person. The poison which perpetuates the disease is not contained in the stools alone, but may emanate directly or indirectly from the body of one sick with typhoid fever. Water is certainly not the medium which conveys the poison, even in a small majority of cases, in the country."—*Med. Reg.*

DR. SUDDUTH, of Philadelphia, says:—Fournier's statistics, as to the class of women from whom gonorrhœa is most frequently derived, are interesting. Out of 387 cases in which males had contracted gonorrhœa, there were from

Public prostitutes,	12
Clandestine prostitutes,	44
Kept women,	138
Shop girls,	126
Domestics,	41
Married women,	26

Thus, it will be seen, that out of the whole number, with the exception of 38, the remainder were those generally considered as coming under the "soft snap" head.—*Md. Med. Journal.*

THE TREATMENT ON DYSMENORRHŒA.—Goubert prescribes for young girls:

Iodoform	gr. ½.
Ext. belladonn.	gr. ⅙.
Asafœtidæ	gr. 1½.

In pill form.

Beginning six or eight days before the time of menstruation, six pills should be taken daily.

For adult women he prescribes:

Potass. iodid.	ʒ i.
Tinct. croci.	ʒ ii.
Tinct. belladonn.	ʒ iii.
Syrup. aurant. cnrt.	ad ʒ iv.

Dose a tablespoonful morning and evening, in any convenient liquid, for a week proceeding menstruation.—*Gaz. de Gynécol.*

MR. ST. CLAIR BUXTON finds the following formula uniformly successful in curing tobacco amblyopia:

Liq. hydrarg. perchloridi (B. P.)	ʒss.
Potassii iodidi.	gr. xij.
Aquæ destil.	ʒj.

To the above he adds for simultaneous administration the following pill:

Ext. nucis vomic.	gr. ss.
Ext. hyoscyami.	gr. j.

Ft. pil. no. i. The pill of this strength is given three times a day, and with the solution.—*Lancet.*

A REPORT comes from a New England town of the death of a young woman who had just given birth to a child, under the obstetric service of a "Christian scientist," whose only remedy for the post partum hæmorrhage which ensued, was prayer. In the excitement the child failed to receive the necessary attention, and it also died. This latest species of quackery, as sacrilegious as it is impotent, is securing quite a following throughout the country. Several of its exponents have opened out in this city. Fortunately the coroner has not as yet been called to sit in judgment as to the cause of death of any of their patients. This argues well for the intelligence of our citizens. But it will not be long before some such case as the one above alluded to occurs. There will then be the usual locking of the stable door after the horse has been stolen. The Lord will, in answer to prayer, help those who help themselves, and it is criminal to teach the possibility of getting something for nothing (or for the mere asking) even in matters of health.—*Med. Age.*

A CAUTION AGAINST THE COMMON USE OF POTASSIUM CHLORATE.—The *Medical Press* writes that chlorate of potassium is a very popular remedy; so much so, indeed, that the idea of its being poisonous in certain doses never occurs to anyone. Yet it is evident that if five-grain pellets be thoughtlessly sucked at intervals throughout the day, a very considerable and certainly injurious quantity will ultimately have been absorbed. In children it gives rise to cerebral symptoms, especially "night terrors," with more or less intense prostration. It would be well if the public were cautioned now and again, that they cannot with impunity assimilate indefinite quantities of a salt which in anything like large doses is an unequivocal poison.—*Med. News.*

OINTMENT OF NITRATE OF MERCURY IN THE TREATMENT OF BOILS AND WHITLOW.—Dr. R. C. Kenner has used this ointment for six years as an abortificiant for boils and whitlow, with excellent results. He covers the whole finger (in the case of whitlow) or the boil and the surrounding skin

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with a layer of the ointment one-eighth of an inch thick, and then applies adhesive plaster. The application is not painful, it causes a slight and not unpleasant "drawing" sensation, followed by disappearance of all pain in twelve hours. In twelve hours more the inflammation has usually gone, and the inflammatory products are in great part absorbed. This method of treatment is of course applicable only in the early state of these affections, before the formation of pus.—*Med. and Surg. Rep.*

VOMITING OF PREGNANCY.—Dr. E. S. McKee in the *Memphis Med Mo.*—Crede recommends the giving every five minutes of teaspoonful-doses of nourishment, preferably iced milk, the patient taking it through a glass tube and lying absolutely quiet. Chazan has reported an interesting case of this complaint in which no abnormality could be discovered about the patient. She was inconsolable at the idea of being pregnant. She was put under ether and made to believe that the fœtus had been removed; the vomiting ceased from that time. This case has led Chazan to believe that perhaps in most cases hyperemesis gravidorum was due to some nervous affection of the mind, and not, as some authors believe, to an abnormality of the genital organs.—*Arch. of Gyn.*

EFFECTS OF MODERATE DRINKING ON THE HEART AND CIRCULATION.—Dr. George Harley sums up the effects upon the heart and circulation which he believes follow the moderate use of alcohol, in the following propositions: 1. Alcohol, when indulged in, even well within the limits of intemperance, has a most prejudicial effect on heart disease. 2. Sudden spurts of muscular exertion act most deleteriously on all forms of organic cardiac affection. 3. Mental excitement is a cause of rupture of atheromatous blood-vessels. 4. A mere extra distension of a stomach by wind may suffice to fatally arrest a diseased heart's action. The knowledge of these facts, he says, has for some years past led him to make it an invariable rule to impress upon all patients laboring under diseases of the circulatory system, who desire to minimize the effects of their complaints and ward off as long as possible the inevitable fatal termination, to pay strict attention to what he calls the following three golden rules: (1) Take exercise, without fatigue; (2) Nutrition, without stimulation; and (3) Amusement, without excitement.—*Lancet.*

REMEDY FOR MYALGIA.—An old and well-known formula combined with lanoline had such a quick and favorable effect in myalgia of the scapular and brachial regions, that I feel safe in offering it to the profession. R.—Hydrate chloral, gum camphor, āā ʒ ss. Mix well, until liquid, and add lanoline, ʒ j. M. S.—Rub well over painful parts. To show what lanoline can do, it fully relieved the pain in six hours, and had the constitutional effects of chloral as fully as if the person had taken gr. xx–xxx per mouth. Only two applications were used, and only a limited portion of the salve.—*Med. Rec.*

NEURITIS.—A case of neuritis involving the sciatic and crural nerves of one side, accompanied by loss of power and wasting of muscles, was recently presented at the Jefferson clinic, and the following plan of treatment advised: R. Syr. calcii lactophosphatis, f ʒ j; liq. potassii arsenitis, gtt iij. M. Sig.—Ter die. Also of ol. morrhuæ, ʒ j ter die.

Locally, to lessen congestion, a constant, descending, stabile galvanic current as strong as could be borne was advised to be used to the affected nerves; faradism, if need be, to exercise the muscles; and for the pain, if it became at any time necessary, the hypodermatic injection of cocaine in the vicinity of nerve.—*Coll. and Clin. Rec.*

TREATMENT OF INTRACTABLE ROSACEOUS NOSE.—A country practitioner, who has long suffered from rosaceous nose, writes to the *British Medical Journal* to recommend scarification, at first twice a week, then once, and latterly once a fortnight. It has a marvelous effect, the heat, pain and unnatural shape at once subsiding, and the redness rapidly abating until, at the end of three months, a month since last scarification, the nose is happily restored to its natural shape and color. It is not a painful process.—*South'n. Cal. Pract.*

APPLICATION FOR GOUT AND RHEUMATISM.—A mixture made up of either, 15 parts; flexible collodion, 15 parts; salicylic acid, 4 parts; morphine, 1 part; painted every hour on joints affected with gout or chronic rheumatism, is said to afford great relief from pain.—*Med. and Surg. Rep.*

A DEODORIZING INJECTION FOR UTERINE CANCER.—Duchesne (*Nouveaux Remèdes*) credits Chéron with this formula: White vinegar, 300 parts; tincture of eucalyptus, 45 parts; salicylic acid, 1 part; salicylate of sodium, 20 parts. From one to five tablespoonfuls, added to a quart of tepid water to be used daily for vaginal injections.—*N. Y. Med Jour.*

"OH, Professor," exclaimed sentimental old Mrs. Fishwacker, during a private organ recital in her new music-room, "do you pull out that sweet nux vomica stop once more!"

HE FORGOT SOMETHING.—Doctor: "I will leave you this medicine to take after each meal."

Mike: "And will yez be koind enough to lave the meal, too, dochtor?"—*Tit-Bits.*

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THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

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AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, JULY, 1888.

The LANCET *has the largest circulation of any Medical Journal in Canada.*

THE ONTARIO MEDICAL ASSOCIATION.

The eighth annual meeting of the above Association was held in Toronto, on the 13th and 14th ult., Dr. Rosebrugh, of Hamilton, President, in the chair. The attendance was up to the average, and was representative, the East sending a fair complement to swell the ranks of this now flourishing and influential society. The meeting must result in good, not only to those who attended and took an active part in the business transacted, but also to the profession at large, and, let us hope, to the cause of medical education, ethics and science. The American brethren were warmly welcomed, and they showed by their presence and the active part they took in the discussions which arose, the interest they feel in our advance in the noble science. This community of interests between the profession in the United States and Canada, is as it should be, and we hope, as the years go by, we shall have more and more reciprocity in all that pertains to medicine, both material and intellectual, with our great and kindly neighbors to the south, and more frequent and full interchange of thought, and of the amenities of professional brotherhood. But why is it, may be reasonably asked, if gentlemen from the United States find it either pleasant or profitable, or both, to attend these meetings, do not our natives show more interest in them, by their presence in greatly augmented numbers? The Association is as we have said large, flourishing and influential, but we venture to say, it is not either so large, flourishing or influential as it should be, considering the standing and numbers of the medical profession in Ontario.

One point in the management of the meetings, we think requires more care on the part of the chairman, and that is the allowing of sufficient time for discussions, on papers read, and the encouragement rather than the discouragement of such discussions. It were surely better that some papers should be considered read, than that discussion should be scanty. Also, we think, more attention should be given to the examination of patients shown to the Association, and to that end more time allowed for such examination. It is rather a damper on any gentleman, who has taken the trouble to arrange for the exhibition of an interesting case, to have two or three who happen to sit next the platform make a cursory and evidently very superficial examination of the case, which has cost him so much trouble, pains and thought, and then to have "next" called on him with about the same interest and appreciation of what has gone before, as is evinced in those places of business where "next" is the standing order of the day and night. This has been, we think, a mistake, committed to a greater or less extent for the past three or four sessions of the Association, and one which, if we wish to encourage the practical use of these meetings, were well remedied.

Some advance was made in the direction of the improvement of our Code of Ethics, and the discussion on the question of advertising or no advertising by specialists or others in the profession, was pretty well and warmly ventilated, but without any definite conclusion being reached. It is to be hoped that the committee which has charge of this matter may push it vigorously next year, so that we may know definitely how we stand on this, as on not a few other points brought up in this connection, and which may be seen by referring to the report on another page of this issue.

The question of the tax on surgical instruments and appliances did not come up. This is to be regretted. If this body had taken active measures, in conjunction with the Ontario Medical Council, we might have hoped for some measure of relief.

The East has the President for next year, and we think a very wise choice has been made. Dr.

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Henderson has been an active and interested member of the Association for a long period of time, and we expect that the next year's meeting, under his rule, will be in every respect excellent. We congratulate Dr. Hendersen on the honor which has been conferred upon him, and the Society on their choice of a young, energetic and popular president.

THE ONTARIO MEDICAL COUNCIL.

The last meeting of the Council was not characterized by the transaction of business of unusual interest. The profession may well congratulate itself on the magnificent new building which is approaching completion, and in which for the first time the Council met.

It was a wise thing to appoint a committee to wait on the Government, to point out the defects in the "Anatomy Act," and the consequent scarcity of anatomical material. Were the Act as it is, fully carried out, matters would be much better; but every possible method of shirking its provisions is experienced in many, indeed, in most of our public charities, and good medical education, on which the public everywhere depend and which is so essential, is on this account crippled more or less. Were the members of our profession in the Legislature and out of it, to do their duty in informing the public mind fully in regard to this matter, they would aid the Council and the medical colleges of Ontario very largely. Even in Quebec, all the public institutions are made, under the Anatomy Act of 1883, tributary to medical education; while in Ontario, and chiefly through the persistently urged, but mistaken views of several of the medical superintendents, the Lunatic Asylums of Ontario do nothing in this direction. With the Medical Council and the Ontario Medical Association both moving simultaneously and earnestly in this very important matter, we hope very soon to learn that our colleges have no longer grounds of complaint on this score.

The usual business of appointing officers, framing reports by various committees and considering these, constituted, as is always the case, the staple of the work done; and this work is most valuable, especially that of the Education Committee, which spares neither time nor labor in considering all matters relating to professional educatiou.

The subject of the status to be given in Ontario to British registered practitioners was discussed a good deal, but no definite conclusion reached. It was thought best to postpone it for a year, in order to collect all possible information in regard to a matter so important.

It was decided to hold an examination in the fall. This is only reasonable, for a whole year is too long to keep candidates waiting, whose means in many cases are of the scantiest. Let us hope that a second examination each year may be the rule hereafter, as it will be, if the cost of holding it can only be kept within reasonable limits, and there is no reason why this may not be done. The Council most wisely neither made many changes, nor encouraged the spirit of change, in the curriculum. There has been in the past altogether too much of this tendency to change year by year, and now that we have in matriculation and in professional examinations reached so high a standard, and one of which our Province may well be proud; the wisdom is to do as the Council has done—let well alone—and give no countenance to needlessly unsettling what is admittedly excellent, and give the profession time to see and approve of the leading position Ontario proudly holds in medical education.

QUACKERY CRIMINAL.

Little concerning the odiousness of quackery need be said. But recently a novel view as to its criminality was held by a learned Judge in Manchester, England, and one which will commend itself to all intelligent men. It is a surprise to us that it has not been acted on until the present, especially when we consider that medical quackery has obtained in all ages, and among all nations. The Judge decided in the Manchester case, that obtaining money under false pretences in this, as in all other methods, was a criminal offence, which renders the offender liable to imprisonment. It is evident that all quacks do violate this very necessary law at all times, as well as those in Manchester, and that the whole fraternity are equally subject to its penalties, not only in England but in all civilized countries. It is not shown that those five prosecuted were sinners above all others. They simply opened a consulting room, advertised their ability to cure all diseases. They did not

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claim to be qualified in any legal way, nor does it appear in the evidence that they assumed the title of physicians. They were not tried under the Medical Act, but simply for obtaining money under false pretences. It was established by the prosecution that they were not qualified by education nor special training to do what they professed to do, and that they were consequently unable to give those applying to them value for their money, and they were convicted. It passes our comprehension that this very simple and natural proceeding, under a law so long established as to become constitutional in most countries, has not been taken advantage of in the past, by those whose duty it was to enforce the laws in the interest of the public welfare. That these ghouls should be permitted to fatten on a suffering class of the community, who are naturally unable to know their incompetency to perform what they promise, or detect their atrocious mendacity until it is too late, is not creditable to paternal government in any country. In most, if not all other matters of incomparably minor importance, men are not permitted to prey on the public, and must render some kind of fair equivalent for the money obtained from them; but in the matter of health and life, it has hitherto been held, that so long as they did not assume the title of M.D., they were in no way amenable to the laws of the land, and might pursue their nefarious imposition on the credulous suffering citizens with impunity. Some efforts have been put forth in this country in the past, to suppress quackery, but they have not been successful in wholly removing the evil from among us. But we trust that, with this decision in Manchester as a precedent, our officials may be in a position to inaugurate a new order of things, and entirely prevent the extortion of money from the sick and suffering, by this class, who have hitherto preyed on the community, in spite of the laws specially enacted for the purpose of protecting those who are incompetent to protect themselves. Medical men should not be obliged to bear the odium of enforcing this view of the law, but where those whose duty it is, are supine, and neglect their duties for the protection of the public in this matter, it might be wise for our Medical Council to attempt to enforce it, in a few instances at least, for the purpose of procuring a decision in Canada on so important a matter.

TAX ON SURGICAL APPLIANCES.

We take the following from the *Southern Practitioner.* If our brethren on the other side of the line have just cause of complaint, as they undoubtedly have by this showing, how much worse off are we in Canada. We cannot hope to manufacture for ourselves, as is done in the United States, and so are entirely at the mercy of foreign producers. This is a question which should be agitated by the profession as a whole, and we believe that if energetic action were taken in the matter we should be able to gain relief: "1. Physicians are at the mercy of instrument-makers in regard to price, make and quality of finish because of the lack of competition. 2. The price of instruments made in this country is out of proportion to that paid for similar instruments on the continent of Europe. 3. Surgical instruments and appliances are so costly that but few doctors entering the profession can provide themselves with an outfit adequate to carry on a general practice. At present prices it is impossible for a country physician's income to sustain his investing in costly instruments, and as a result many simple cases, such as retention of the urine, foreign bodies in nose or throat, deep-seated abscesses, etc., all of which could be relieved at once with proper instruments, must either die from the immediate cause or from the effects of time lost in seeking skilful manipulation, or else they are frequently crippled and disfigured because the most intelligent help, though patiently given, is itself crippled for want of proper instruments. 4. The cheaper grades of instruments are either antiquated or so poorly made that they may prove a cause of failure in operations, sapping, as it were, the natural inclinations to surgery in its inception. 5. European instruments are from 25 to 75 per cent. cheaper than ours, and their introduction into the market will enable the mass of doctors to buy those of prime necessity, will bring down the price of the home-made appliances, and oblige the makers to use good material and put a better finish to their work. 6. The removal of import duties on surgical and other instruments used by the profession, and on medicines in general, will produce the same results, as we all know it did on the article of quinine.

MR. THOMAS BRYANT has retired from the post of Surgeon to Guy's, after thirty-one years' service.

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VIBURNUM PRUNIFOLIUM IN THREATENED ABORTION.—Dr. D. A. Richardson, in an article in the *Med. Reg.*, speaks highly of the success attending the administration of viburnum prunifolium in threatened abortion. He gives a case in which, with well-marked uterine contractions, the os was beginning to dilate. He says: I then gave the following:

℞.—Chloral hydrate, ... gr. x.
Fld. ext. viburnum, ... gtt. x.
Water to, ... ℥ j.

Take every half-hour till easy, and continue at intervals of four hours after cessation of pains.

I left the patient quiet after two doses, and on my return next day gave the following:

℞.—Ammon. bromid., ... ℨ ss.
Ext. viburni prun., . . . f ℥ vj.
Aquæ ad., ... ℥ iv.—M.
Sig. ℥ j. t. i. d.

This was continued for a week. In May, about four weeks from the first visit, I was called again, and found the same conditions prevailing, with the most severe pains I have ever seen in a case which escaped abortion. I gave the chloral and black-haw as before, and repeated the prescription for ammon. brom. and black-haw, ordering its continuance twice daily until the patient was delivered.

She was delivered at full term, without forceps, of a healthy female child, weighing eight pounds, which is still living and in good health. In Nov. 1887, being again in her seventh month, she began complaining of bearing-down pains, and I gave her the prescription for ammon. brom. and viburnum, with the effect of quieting them entirely; and on Jan. 10, 1888, she was delivered of a male child, eight and one-half pounds in weight. I have used the some mixture in several cases where bearing-down pains are experienced, either during the period of gestation, or at the menstrual period, and know of no better remedy in either condition.

HOT WATER IN SURGERY.—The use of hot water in surgery is said by many surgeons to be based upon a few principles that make it necessary for the water to be real hot. The following suggestions cover the ground:

After the larger vessels have been tied in an operation wound, there occurs an outward flow from the divided arterioles, venules, and lymph-spaces of a sero-sanguineous fluid, highly albuminous in its character, in varying quantity, and continuing for a longer or shorter period. As long as this outward flow continues there is perfect immunity from infection by atmospheric germs. The application of hot water checks this outward flow, coagulates the albuminous elements in the fluid, and forms an impenetrable shield over the surface of the wound. Hot water applied to the abraded surface acts as a powerful cardiac stimulant and controls shock.

THE PHYSICIAN'S FEE.—The *Medical Record* gives the following excellent rules for guidance in the collection of fees:

Always make a charge for each service; this gives it a business value in the eyes of the patient. The charge should always be just and reasonable; then no deduction is necessary. Insist always on full payment, based, if necessary, upon itemized accounts. When the patient asks for a reduction of his bill, recall the sacrifice of sleep, of meals, and of comfort in rendering him prompt service. Think of your preferences then and of his now. Never allow sentiment to interfere with business; the "thank you" is best emphasized by the silvery accent of clinking coin. The loss of money by sickness only affects one side in every other business; why should it be different when the doctor is to be paid? Always charge a fixed fee, and never trust to your patient's generosity or embarrass him by guessing an amount that would be satisfactory to you; it is very much like firing with a kicking gun at a black cat in the dark. Render bills at short intervals, and be in earnest when you commence to collect them.

DIABETES MELLITUS AND ITS TREATMENT.—In an article in the *Br. Med. Jour.*, Dr. Hofmeister, of Carlsbad, says of this disease:—"In conclusion, I venture to lay down the following propositions, as summing up the results of my studies and observations:

"1. We are still in total ignorance as to the etiology of diabetes mellitus.

"2. The quantity of sugar found in the urine is of no significance at all in judging of the severity and danger of any particular case of diabetes.

"3. The smallest traces of sugar, found only by most careful chemical examination of the urine, are of considerable importance in a great many cases, so that they cannot be left out of account in trying to arrive at a correct diagnosis and prognosis.

"4. The dietetic treatment must be adapted to

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the special requirements of each case, as there are cases in which, without regard to the amount of sugar secreted, complete abstention from starchy matters is not only useless, but directly injurious.

"5. According to the present knowledge, strict anti-diabetic diet, combined with the use of the mineral waters of Carlsbad, is the best method of treating diabetes mellitus."

CANADIAN MEDICAL ASSOCIATION.—The twenty-first annual meeting will be held in the City of Ottawa, on the 12th, 13th and 14th of September next. The following are the officers of the Association: President, J. E. Graham, M D., Toronto; President elect, George Ross, M.D., Montreal; General Secretary, James Bell, M.D., Montreal; Treasurer, Charles Sheard, M.D., Toronto. Vice-Presidents: for Ontario, -Dr. Eccles, London; Quebec, Dr. Christie, Lachute; New Brunswick, Dr. Currie, Fredericton; Nova Scotia, Dr. Wichwire, Halifax; Manitoba, Dr. Blanchard, Winnipeg; British Columbia, Dr. True, New Westminster. Local Secretaries: for Ontario, Dr. Jas. A. Grant, jr., Ottawa; Quebec, Dr. Armstrong, Montreal; New Brunswick, Dr. Trueman, Campbellton; Nova Scotia, Dr. Freeman, Sackville; Manitoba, Dr. Chown, Winnipeg; British Columbia, Dr. Milne, Victoria.

PARALDEHYDE AS A HYPNOTIC.—Dr. Allen A. Rawson, writing to the *Med. & Surg. Reporter*, says it is valuable "in nervous irritability, or even cerebral exhaustion and insomnia, especially the latter." He gives the following formula, as the best he has been able to devise:

℞—Paraldehyde, ... ℥ ij.
Glycerine, ... ℥ iv.
Simple syrup, ... ℥ j.
Sweet spirits of nitre, . . . ℥ x.

Oil of sweet orange (or oil of anise) twenty drops to flavor. Mix and unite by agitation. Dose.—One to four fluid drachms every hour, or two to four hours.

This may be administered alone, or with water. He advises a few drops of tinct. cocci, to give color to the mixture.

NEW REMEDY FOR SEA SICKNESS.—The theory has been lately advanced by Dr. Leiser (*Br. Med. Jour.*) that sea sickness is caused by arhythmic respiration brought about by the ship's motion. This irregular respiration produces insufficient aeration of the blood to a degree great enough to act as a poison to the brain for the time being. The remedy is simple, to take full and rhythmical respirations, not fewer than twenty to the minute, breathing by count as it were. He had his theory and remedy well tested by Drs. Stockman and Prentice on a recent trip across the Atlantic in the S. S. "Etruria."

SCOTCH OATS ESSENCE.—Dr. R. G. Eccles has shown in the April issue of the *Druggists' Circular* (says the St. Louis *Cour. of Med.*), that the article which has been widely advertised as a nerve tonic and invigorator contains one-third to one-half of morphine in each fluid ounce. Just the persons who are predisposed to morphinomania are those who would be most likely to be attracted by an article claiming what was claimed for this, and, without knowing it, would be likely to acquire that terrible appetite which, for persons of that temperament, is generally utterly irresistible. Stringent legislation should be enacted to prevent such diabolical fraud.

PUERPERAL ECLAMPSIA.—Dr. Wm. Goodell says (*Med. Standard*), in the majority of cases of puerperal eclampsia, I limit my treatment to chloral hydrate thrown up the bowel. This is repeated whenever twitchings or other premonitory symptoms of recurring convulsions manifest themselves. In plethoric cases I bleed first and then give chloral hydrate per rectum. Whenever convulsions are threatened, I either bleed or else give chloral hydrate per os, in smaller doses, until headache is relieved, or until the twitching, double vision or blindness are removed. If labor has begun, I give chloroform, not ether, and deliver rapidly If labor has not begun, I watch and await events, interfering only when compelled.

OZŒNA TREATED BY INHALATION.—Noquet gives the following (*Rev. de Thérapeutique*):

℞—Chloral hydrat., ... grs. ¾.
Acid. boric., ... grs. 90.
Glycerin. pur., ... ℥ 2½.
Aq. lauro-cerasi, ... ℥ 5.
Aq. destill., ... ℥ 50.

The spray should be thrown into the posterior nares, and the patient should expire it through the nostrils.

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FOR INSECT STINGS.—The following is recommended by Dr. Bernbeck (*Therap. Gaz.*) for insect stings or bites:

Collod. elast., ...	ʒv.
Acid. salicyl., ...	gr. 15½
Collod. elast	ʒiiiss.
Hydrarg. chlorid. corrosiv., .	⅛ gr.

SIG.—To be applied to the sting.

When the above is applied very soon after the infliction of the sting or bite, pain and irritation at once cease, and swelling of the surrounding skin rarely takes place.

TONSILLITIS.—Dr. Hillary (*Practitioner*) gives the following as his method of treatment in this troublesome disease:—Open the bowels freely with a good dose of mistura sennæ co., put the patient on milk diet, and administer the following draught:

℞—Sodii salicylatis, ...	grs. x–xv.
Tincturæ aurantii corticis, .	♏ x.
Aquæ, ...	ad. ℥ j.—M.

Sig.—To be taken every four hours.

When the inflammation in the throat begins to subside, reduce the dose of salicylate and continue to give it in smaller doses for a few days after all throat symptoms have disappered.

EPILEPSY.—The following is a favorite prescription, especially in epileptics with weak or irregular heart action:

℞—Zinci valerianatis, ...	ʒ j.
Ext. belladonnæ, ...	grs. vj.
Pulv. digitalis, ...	grs. vj.

M. ft. pil., or caps. xx. Sig.—One three times a day.

COCAINE IN WHOOPING-COUGH.—This drug has been used with excellent results in cases of whooping-cough (*Al. Med. Central. Zeit.*), where the usual remedies had failed:

℞—Cocaine mur., ...	grs. iij.
Aq. amygdal. amar., . . .	ʒ iiss.—M.

Sig.—Gtt. x–xv, several times daily.

The relief was remarkably evident, and in about two weeks the disease had disappeared in four cases in which this treatment was adopted.

HOSPITAL APPOINTMENTS.—The following gentlemen have recently been appointed to the Toronto General Hospital:—Drs. A. McPhedran and W. B. Nevitt to the regular staff, and Drs. Spencer, J. W. F. Ross, T. Covernton and A. Baines to the extern department.

FLATULENT DYSPEPSIA.—The following is recommended (*Jour. de Méd.*) as very useful:

℞. Bismuth. subnitrat.,	
Magnesiæ., . . .	āā gr. xxx.
Belladonnæ pulv.,	
Zingiberis pulv., . .	āā gr. iij. M.

Divid. in chart. x.

SIG.—One twice daily in peppermint water.

CHOLERA INFANTUM.—Dr. W. H. L. Hale says (*Polyclinic*), the formula he prefers in cholera infantum and many other diarrhœal disorders in children, is the following:

℞—Bismuthi salicyl., ...	ʒ ij.
Tr. Capsici, ...	gtt. xij.
Spts. ammon. aromat., . . .	f ʒ iss.
Pulv. acaciæ, ...	ʒ ij.
Aq. cinnamomi, q. s. ad. . .	f ℥ ij.—M.

Sig.—Teaspoonful every two hours, for a child from three months to one year of age.

HERPES ZOSTER.—Dr. Guibot says he (*Med. Rec.*) recommends flexible collodion as an application in the treatment of herpes zoster. The advantages are that it has a local anæsthetic action, that it exerts a uniform pressure on the lesions, and that it forms nn impermeable covering which pro tects them from the action of the air.

HE MISSED THE MARK.—Young physician (to patient): "What you need is exercise, sir. You should walk more." Patient (reaching for his pocketbook): "How much, young man? I walked all last night with the baby."

BRITISH MEDICAL ASSOCIATION.—The fifty-fifth meeting of this august body will be held at Glasgow, August 7th, 8th, 9th and 10th, 1888.

THE practitioners of the United States are moving for reciprocity in medicine with Great Britain. Dr. Meany, of Chicago, who is now in London, says the *Med. Rec.*, has written to an official representative of the United States as follows:—"We beg, sir, most respectfully to ask your aid and consideration for the purpose of having granted, to legally qualified practitioners of medicine in the United States, the same privileges for those who may desire to practise medicine

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in the United Kingdom." Registered practitioners in the United Kingdom are allowed to practise in the United States on equal footing with graduates of American schools and colleges.

WM. R. WARNER & Co. have issued the following notice to physicians :—" We take this method of denouncing the circulation of certain erroneous reports as being the outcome of ignorance or malice. We have no connection with the firm of H. H. Warner & Co., of Rochester, who make " Safe Remedies " and other patent medicines. Our advertising is to the medical profession and our pills and products (Warner & Co.'s) have been used and held in high esteem by the most eminent doctors, during the past thirty years, in the United States and in foreign countries. The therapeutic value of a remedy is ascertained by the medical practitioner, and it is the province of the manufacturing chemist to prepare the various medicinal preparations in the most correct, compatible, palatable, and convenient manner by the aid of skill acquired by years of practice and experience.

DR. D. C. ALLAN, of Amherst, U. S., writes concerning Papoma.—Various kinds of food for invalids, and particularly for children, have received my closest attention for several years, and most all kinds have more or less merit ; but since the first introduction of " Papoma," the manufacturers of which entitled the article to confidence, I have used this food only for infants, both in health and in a number of cases of various diseases, and can only say that, properly prepared, it perfectly fulfils all that can be asked, for it is superior to all others, and I shall employ no other preparation of the kind now in use.

THOSE ladies (says the Maryland *Med. Jour.*) who desire to stand next on the list of Futures, a fashionable obstetric nurse, will require to be endowed with an unusual amount of prescience, as she informs her patrons that her dates are full up to *a year* in advance. Truly the Americans are a progressive and particularly wide-awake people.

Mathew Arnold had disease of both mitral and aortic valves. In his case the affection appears to have been hereditary, as his father, and two of his sons died from organic heart troubles.

MINERAL SPRINGS AT TILSONBURG, ONTARIO.—Dr. Smith, of Tilsonburg, has lately expressed his views as to the therapeutic value of the springs of that place, and is elaborating a plan for the establishment of a thoroughly equipped sanitarium in connection with them. Dr. Croft's analysis of the water, showed the following salts in one gallon of the water :—Sulphate of Lime, 5.75 grains ; Chloride of Sodium, 5.62 grains ; Chloride of Potassium, trace ; Bi-Carbonate Lime as Carbonate, 2.37 grs.; Bi-Carbonate Magnesia, 4.11 grains.—Total 17.85 grains. They will be seen to strongly resemble Bethesda water. We wish the Dr. every success for his scheme.

WE regret that an article on page 308, June number, describing " An apparatus for removal of pleuritic effusion," was not credited to the *Med. & Surg. Reporter*, from whose columns we took it.

IT is said (*Obs. Gaz.*) that inflammation of the vulvo-vaginal glands is much more frequent on the left side than on the right.

THE owners of the London *Lancet* have been offered $400,000 for the journal, and have refused the offer.

Books and Pamphlets.

INTUBATION OF THE LARYNX, by F. E. Waxam, Chicago. Published by Charles Truax & Co., 75 and 77 Nassau Ave., Chicago, Ill., 1888.

In this very neat little monograph of about 100 pages, Dr. Waxam has presented to us all that is necessary to be noted in the operation of intubation, and as this new-old method of relieving stenosis of the larynx has come to stay, it is well that the technique and all the important facts concerning the operation should be accessible to all.

Chapter 1 gives the history of intubation, with its fierce struggle for existence, and the survival, shall we say, of the fittest. He also gives detailed accounts of and illustrates various modifications of instruments, and considers that the greatest improvement yet devised is that by himself, of an artificial automatic epiglottis upon the upper end of the tube. The difficulty of securing perfectly free action of this valve, surrounded as it generally must be by swollen tissue, tough adhesive mucus

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and exfoliated membrane, and the fatal issue that must follow its obstruction, furnishes me with many doubts as to the value of this modification.

In Chapter 2, some practical points in the anat omy of the larynx are given, with illustrations.

Chapter 3 is clear, concise and perspicuous in the delineation of the technique of the operation, and he who intends to intubate, should carefully note and practise every point here mentioned, unless I should except one of some little importance. On page 44, for the removal of the thread, he advises re-introducing the gag and the finger before drawing on the thread. This I have never found necessary. I cut one of the threads near the mouth and then by bringing the other nearly taut, give it a few gentle taps with the index finger; the short end will be seen to rapidly recede into the mouth and may be easily withdrawn.

The after-treatment is finally considered in Chapter 4, together with the means of overcoming certain complications likely to arise, all of which should be carefully noted.

The time for removal of the tube is discussed, but I should like to have seen some mention made of the indications and contra-indications for intubation, wherein lies a nice field for the discriminating and judicious physician's observations.

In all, this monograph is to be commended to those who purpose intubating. It contains all that is important and nothing superfluous.

THE APPLIED ANATOMY OF THE NERVOUS SYSTEM, by Ambrose L. Ranney, A.M., M.D., Professor of the Anatomy and Physiology of the Nervous System in the New York Post-Graduate Medical School and Hospital. Second Edition. Profusely illustrated. Price $5.00. W. J. Gage & Co., Toronto.

This is without exception one of the best treatises on Applied Anatomy of the Nervous System to be found in any language. It is clearly written, the type good, and the plates are all that could be desired. In reading the ordinary works on the Physiology of the Nervous System, one finds many contradictions, and many confused ideas naturally result. In this work every part is, so far as possible, dealt with separately, carefully, and thoroughly explained so as to leave its teachings clear in the mind of the student. We especially recommend this treatise, for it is a work of great excellence, and we are sure one which the neurologist will find indispensable, while the general practitioner will find it one of the most useful works in his library.

HYSTERIA AND BRAIN TUMOUR; and some other cases of Nervous Disease. By Mary Putnam Jacobi, M.D. New York and London: G. P. Putnam & Sons.

This is a collection of excellent essays on those diseases which are so often so closely similar in their clinical phenomena. Hysteria may be said to be the simulation of all nervous diseases, and the characters of it in its close simulation to many serious organic affections of the nervous system is well shown in this series of essays.

AMERICAN SYSTEM OF OBSTETRICS BY AMERICAN AUTHORS. Edited by Barton Cooke Hirst, M. D., Associate Professor of Obstetrics in University of Pennsylvania, Obstetrician to the Philadelphia and Maternity Hospitals, etc. Vol. I. Lea Bros. & Co.

The literature of obstetrics and gynæcology is fast becoming so extensive that some reliable system is needed in which the practitioner may find everything practical and scientific without having to wade through innumerable pages in support of every new theory. This system is to hand in the work above mentioned, and if the subsequent volumes compare favourably with this one, we are sure it will be a work well received and highly prized by the medical profession. We can recommend it highly, it is an exhaustive treatise of the subject and clearly written.

THE LANGUAGE OF MEDICINE: A manual giving the Origin, Etymology, Pronunciation and Meaning of the Technical Terms found in Medical Literature. By F. R. Campbell, A.M., M.D., Prof. Materia Medica and Therapeutics, Medical Department of Niagara University. New York: D. Appleton & Co. Toronto: W. J. Gage & Co. Price, $3.00.

This work is a useful dictionary, in which is traced the origin and use of all terms used in medicine. It is a valuable book for students.

OLD SOUTH LEAFLETS. D. C. Heath & Co., Boston, Mass.

These leaflets are interesting, containing as they do such matter as 'The Declaration of Independence,' 'Franklin's Plan of Union,' 'The Constitution of the United States. They are published for schools and for the trade by the above firm.

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THE CANADA LANCET.

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Original Communications.

THE SOFT MYOMA.*

BY DR. A. W. JOHNSTON, DANVILLE, KY.

Knowing full well that your election for this post of honor is not so much due to my own merit, as to the fortunate association with my beloved master, Lawson Tait, also having heard of your deep interest, not only in the practical, but in the abstruse sides of our science, I have decided to bring you a part of the work in which he and I were interested, but which to many societies of general practitioners would prove an insufferable bore; so that if any of you become fatigued with these physiological studies of the uterus, he must lay their infliction at the door of madame rumor, and not charge them up to me, as a sample of deliberate pedantry.

The subject, of which I wish to give only the natural history, is that of the "Soft Myoma," but please remember that I exclude all forms of sarcoma and carcinoma, and speak only of the soft benign growth of the uterus. Those of you who have kept up with the history of this subject, know that until a few years ago this form of uterine tumor was thought to be merely one of the secondary changes of the hard myoma, and that it was believed to be due entirely to a degeneration of the newly-formed muscular fabric which composes the ordinary fibroid so familiar to us all. A few years ago, however, this began to be doubted by some authorities, and what I will now attempt, is to bring forward proof, that from its very inception, it is an entirely distinct tumor, springing from a very different source, having separate histological and clinical histories throughout its course and widely differing terminations.

*Read before the meeting of the Ontario Medical Association, Toronto, June, 1888.

As has been proved, long ago, the hard myoma is an homologous tumor of the uterine wall; the soft myoma being considered a totally heterologous condition; but what I now expect to prove is, that it is not a foreign tissue to the uterine body, but merely an homologous growth of the uterine lining.

That you may understand more thoroughly what my idea of this uterine lining is, I must refer somewhat at length to some papers, all of which form links in a chain, of which this article is only a part.

In August, 1881, I published a paper in the New York *Archives of Medicine*, on the "Origin of the Blood Globules." It was the result of a series of studies of the spleen, the tonsil, thymus and lymphatic glands, as well as the other adenoid structures, which are located along the alimentary canal. In making these studies, I believe I was the first to use the high power immersion glass in studying a development, which I then, for the first time, found going on in the ultimate fibres which compose these tissues.

Throughout them all, I found a new method of cell production—that is, by a process of growth of the minute clots within the fibre. The forming corpuscle bulges out from the thread-like matrix, increases its bulk and richness of granulation, until it finally separates from the parent thread, a fully grown lymph corpuscle. Though I sought carefully for months at that time, and I can now say the same as to years, I have never seen a lymph corpuscle bifurcate, except in an inflamed organ. By this means I sought to establish the fact, that in the adenoid tissues with this special method of development, was stored up material, from which corpuscular supply was constantly replenished, and that on their exhaustion, as is found in extreme old age, depends the senile atrophies, and many of the other wasting conditions of the aged.

Two years and a half ago, while doing Mr. Tait's pathological work, I saw for the first time a healthy specimen of the corporeal endometrium. You can imagine my surprise when I found it to be very closely related to my old friends of the adenoid group. Studying it faithfully, I tried hard to reconcile its condition to the then recognised theories about menstruation. Like all the rest of the world, I had been carried away by the doctrines in regard to the variations in blood pressure,

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and while I had had no reason for opposing the views of the leading histologists of the past decade, like Dr. John Williams, and all others who had worked in my line in physiology, I had put one of the effects for the cause, and accepted their dogma, that the blood vessel itself, instead of being merely the means by which nutrition is brought to a rapidly growing tissue, is in reality the *source* from which that tissue springs.

I was peculiarly fortunate in my material, for I was frequently able to freeze and cut a specimen that Mr. Tait had removed from a living subject, before there was any possible chance for post-mortem changes to take place. Among these specimens, I obtained several menstruating uteri, whose conditions I could in no way harmonize with the views of menstruation, as taught by Dr. John Williams. Not satisfied with these specimens which, as some might have said, had already had pathological changes; through the kindness of the staff of the General Hospital in Birmingham, I was given free access to the immense mass of material which its dead house afforded, and for several months spent my leisure time studying the life history of the human endometrium. From this work I was convinced, that not only was Dr. John Williams wrong in his idea of the shedding of the endometrium, but that the endometrium itself, like the lymphatic gland, is another mass of adenoid tissue, whose function is to form the placenta. Like some other organs in the body, the hair follicles and the like it lies dormant for the first few years of extra-uterine existence, and like the thymus gland, finishes its course long before the rest of the economy is exhausted.

By a strange coincidence, just about two years ago, when I gave the results of this work to the British Gynæcological Society (without either of us having the slightest idea of the contents of the other's paper), Mr. Bland Sutton read a paper on "Menstruation in Monkeys," which, so far as it went, fully confirmed every idea which I had advanced in regard to the errors of Dr. John Williams, and all those who claim that menstruation destroys instead of purifying the endometrium. Being satisfied from its integral elements that I had a permanent adenoid tissue to deal with, the question at once came up, Where is its emergent stream which washes away its ripened products common to all other adenoid structures? The answer came at once—It is the menstrual discharge, and it is the spleen, and not the axillary gland to which it is most closely allied. In the herbivora, however, whose comparative anatomy I at once began studying, I found not only the same adenoid tissue, but a lymphatic apparatus which was capable of disposing of any possible amount of corpuscular growth which the cotyledons, under any circumstances, could produce. Thus showing at once that it is the erect position which necessitates menstruation; for with loose lymphatic network, necessary to the passage of a lymph stream, the erect position of the uterus could not possibly be maintained. The lack of this lymph stream also shows the necessity for the maternal placenta, being passed *in-toto*, and not being left to be absorbed, as is the case with the diffuse and multiple, and some forms of the single placentæ.

After these studies of the herbivora, I went more deeply into the comparative histology of the endometrium, the results of which were given to the British Gynæcological Society last June. It would occupy too much of your time to follow out at length the reasonings in that paper, but those of you who wish to see it will find it in the November number for 1887, of that Society's journal. The deductions which I draw from it are that *all* endometria are adenoid, but as there are great variations in the different forms of the placenta of the lower animals, there necessarily must be great differences in the structures of the organs which make them, and, further, that the same endometrium, particularly of the dog, goes through very radical changes, during the cycle of the rut, and that the causes for the widely different descriptions with which the world has been presented by different observers, of the same endometrium, is due to their examining it in different stages of the cycle of the æstrus. But for our present purpose, the principal thing that is necessary to know is, that from the ultimate fibres of the endometrium, no matter to what animal it may belong, there is a greater or less cell development constantly going on.

Last September, before the American Gynæcological Society, I reported a paper, which shows what the arrested development of this organ may accomplish, and what I now wish to give to you, is the picture which its one development produces. The first idea I ever had of the real nature of the

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soft myoma, I got from a specimen which I helped Mr. Tait remove. Its history was that of most other such growths. Mr. Tait had diagnosed the tumor as uterine, but had half-way suspected pregnancy on account of its extremely soft, semi-fluctuating condition. After watching it, though, until the term should have been fully passed, he decided it to be a myoma, which must be removed.

Although he had watched the case for more than a year, when we had gotten the abdomen open, and exposed the tumor to view, he whispered across the table to me, "I believe it is a pregnancy still." After careful examination, we found it to be a soft myoma, involving most of the body of the uterus. An amputation at the internal os, not only saved the patient's life, but gave me a beautiful specimen. It contained no cysts of any kind, but was composed of a loose mesh-work whose interstices were filled with a fluid lymph, and from whose ultimate fibres a rapid proliferation was going on, so much, so that had I not known exactly where it came from, I would have thought I was dealing with a lymphadenoma.

As you all know, soft myomas are extremely rare, the only other one in which I ever came in contact, I removed successfully, a few months since. Like the one with Mr. Tait—the diagnosis could not be made. An exploratory incision for the relief of either a small ovarian tumor, a soft myoma, or a malignant tumor was done, and the soft myoma revealed in the wound. So extremely deceptive was the sense of fluctuation it gave, that after its removal, one of my assistants, whom I know to be a well-trained surgeon, was willing to wager almost any amount that the tumor contained a cyst. On splitting open, however, we found the same loose mesh-work, embracing many lymphatic spaces, which reminded one very much of the physical condition of a sponge. After cutting and freezing, I found much the same state of affairs as that described in Mr. Tait's specimens, the principal difference being in the presence of a greater or less number of muscular fibres distributed throughout the tumor. Many places, however, showed nothing but the myxomatous tissue, other places showed the young muscle cells of Billroth. In other places, where we had a rapid cell development, which were evidently originated from the ultimate fibres, some corpuscles seemed to be separating from these fibres and floating away in the lymph. Others, again, seemed to be taking on a spindle shape, and going directly on to the development of new connective tissue cells, and, so far as one can tell, to the development of a young muscular fabric.*

Any one who is at all familiar with mucous tissues, can tell at a glance to what class they all belong, and I do not think it would take a great deal of microscopical training for one to catch the relationship between these tissues, and having established this, my object is almost accomplished. For it is the kinship of the parenchymæ of the endometrium and the soft myoma which adds a pathological proof of the adenoid theory of the normal endometrium. The sponge-like interstices give free room to the large amount of œdema which these tumors contain, and it is its presence that gives the deceptive sense of fluctuation which so frequently places the abdominal surgeon in uncomfortable situations. Where this œdema comes from, I think is perfectly plain.

We have known for a long time that the lymphatic apparatus of the human uterus is not very rich, and that it is the discharges through its cavity which fills the place of the large lymphatic trunks, found in the lower animals. When the endometrium begins to develop backwards into the muscular wall, as this tissue for its well being requires a greater amount of lymph than is necessary for the muscle itself, at once there begins a disproportion between the quantity of lymph contained in the uterus and its normal outlets. As the tumor grows, this inequality becomes greater and greater, the result soon being a damming back of lymph within the capsule of the rapidly growing tumor. One of the consequences of this is the formation of lymphatic retention cysts, and this, I believe, is a true history of most fibro-cystic tumors of the uterus. I have never had the opportunity of examining one of these tumors, and cannot say positively whether they embrace more than one condition or not, but am prepared to believe that they are produced by two distinct histological conditions, this being one of them, and the other I would look for in the abnormal or unusual development of some of the uterine follicles. As I have shown, the interstitial tissue of these tumors is exactly that of the endometrium, and why may it

* Here the Dr. showed a plate which, we regret, not to be able to produce.

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not contain uterine follicles just as it does in its normal position? These follicles may be simply out-growths from the normal ones, dipping further back between the muscular bundles, just as the mucus tissue does. Or, I say it deliberately, they may spring directly from this mucous tissue itself. This, I know, to all of you sounds like rank heresy, and to some it may appear "The wild imaginations of a fevered brain," for Remak's law has been the statute by which the whole of a generation has been judged, dissensions from which have been visited with the most dire punishments.

Even as a student I was not satisfied with its dogmas, and for ten years most of my leisure time has been spent in the quiet investigation of its claims. Eight years ago, as my old sketch book shows, I had the proof of its fallacy, but then did not understand it well enough to know even what this proof meant. But, "Led on through ways we know not of, and by means we know not how," the discovery of the adenoid nature of the endometrium has helped me to understand those old drawings, and by some studies which are yet unpublished, I have proof positive, that as taught by the last generation, Remak's law, while it has great semblance of truth, still in its fundamental prin ciples is entirely wrong.

I take this first opportunity since my perfect satisfaction of its errors, of putting myself on record as a rebel to the iron-clad system, which its dogmas have built up; but to go deeply into this subject would take entirely too much of your valuable time, and I must leave it with the statement that I hope soon to publish the whole in a separate paper. I think, however, I have satisfactorily shown that the soft myoma is much closer kin to the mucous polyp than to the tough fibroid of the uterine wall, and it seems to me, that in our management of them, we will have better success, if we act in accordance with these views; for I cannot believe, until I have seen better proof than has so far been advanced, that the electric current can have much effect in the absorption of these tumors, for as the lymph forms a very large proportion of their bulk, its removal by tapping, as recommended by Keith, will give considerable relief, and where the patient is near the menopause this is frequently all that is necessary to be done; but in the truly cystic uterus, we cannot hope to gain much if we do not extirpate the whole of the diseased tissue.

In closing, gentlemen, let me thank you, not only for the distinguished honor you have conferred on me, by asking me to be present at this meeting, but also the courtesy with which you have listened to my weak efforts to draw your attention to the tissues themselves, and for a short time to relieve your mind of the wearying search after that "Will-o'-the-wisp," the harmless germicide. All honor to the biologists who are working out and classifying the various orders of the lower grades of life, and deserving of our greatest praise, are those who are showing us the true causes of fermentations, suppurations, and the like death-dealing processes; but it does seem to me that we are not only in danger of going too far in their pursuit, but that we have almost lost sight of the vital force, and are coming to look on the human body very much as we do on the inanimate contents of a gelatin test-tube; so that if by these descriptions of the varying tissue changes I have recalled to your memory that, opposed to these little creatures, there is a force, which if properly taken care of, is capable of the most wonderful conservatism in life, and that it is our duty under all circumstances to most jealously guard it, I will feel that my efforts have not been in vain.

Once more, Mr. President and gentlemen, I thank you, and hope than as the years roll by, this our first introduction will ripen, not only into the respect which fellow workers hold for each other, but that it will cement the esteem which our sister countries and kindred nations now hold for each other.

TYPHOID FEVER.*

BY CHARLES SHEARD, M.D., M.R.C.S., ENG.,
Prof. of Physiology and Clinical Medicine Trinity Med ical School, Toronto.

It is fair to assume when the President of this Association requested me to write a paper upon the "Ravages of Bacteria in Blood and Tissues," that he with characteristic liberality placed the whole field of medicine before me that I might select of what would, in my humble judgment, be most profitable for the Society's consideration. I hope none will be disappointed when they learn they are invited to a discussion upon so old a subject as Typhoid Fever. Neither is it intended to occupy your time in studying the character, habits and

*Read before the meeting of the Ontario Medical Association, June, 1888.

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features of those minute organisms known to be materies morbi of this class of disease; but rather would I claim the liberty of dealing with some obscure features in the history of this disease, the study of which may be of service to us and especially in a clinical relation. I invite your attention to the subject of typhoid fever, confident that in it we have much to learn and much to unlearn. Let us stop to consider the conditions ordinarily implied in speaking of typhoid fever—these are, as I understand, them, (1.) Ulceration or inflammation of Peyer's patches and solitary glands. (2.) Inflammation of the *mesenteric glands*. (3.) Softening, and often pulpy degeneration of the spleen; and I state, that save in those cases where death occurs from the direct poisoning of the patient with the materies morbi of typhoid during the first ten days, without the conditions marked, the case is not typhoid, and *I would further state that such abdominal lesions cannot exist without abdominal symptoms.*

It is my belief that many cases of septicæmia of various degrees of severity, and from various causes are mistaken for typhoid, chiefly because we rely upon what is so unscientifically called the "typhoid state." I would briefly refer to a case which I had under my care in the Toronto General Hospital, and where I made such a mistake. The patient, Lelia Whimp, was under my care for the treatment of typhoid for seventeen days, during which she had marked typhoid symptoms, headache, furred and brown tongue, epistaxis, low delirium, and the condition ordinarily seen in typhoid. At the end of seventeen days her typhoid symptoms left her, and marked septicæmic manifestations replaced them, for a subsequent period of twenty-five days, when she died, and I made an autopsy of the case. Confident that I would find the characteristic typhoid lesions, and probably in them trace a cause for subsequent septic inoculations, I searched the abdomen carefully and was disappointed; no lesions existed, no evidences of a healing or healed ulcer were to be found; I searched the large bloodvessels and heart, for a cause of of the later septic manifestations; I searched the brain, hoping that some hidden cerebral abscess might explain away my puzzle, but all was in vain. I regarded the case with grave disappointment, and about to leave it, I caught sight of a slight fulness in the right ankle joint; on opening this I found it filled with the products of a pus-forming inflammation, and on pushing my examination to other joints, I found the right hip and the opposite knee filled with sero-purulent matter and the structures of the joint destroyed. I may say that during life there had been nothing complained of to call attention to the joints. I now present you the temperature chart, which I claim, during the first seventeen days of her illness, much like as one would expect it to be in a typhoid case; here was evidently a septicæmia mistaken for typhoid, by relying on the so-called typhoid state and the temperature chart.

To go back to my original statement, that after the first week abdominal lesions and abdominal symptoms must exist to prove typhoid. I know this will be opposed to the feelings of some, who recall cases of mild typhoid, without such, or any symptoms—the so-called typho-ambulans; but I believe such cases are mistaken diagnoses, and I would dispute the existence of such a thing as typho-ambulans. In support of this I will refer to one of several cases I have observed.

This is the case of Alice Wilson, admitted as typhoid into the Toronto General Hospital. She had no marked *abdominal symptoms*, but other indications of typhoid, brown and coated tongue, headache and epistaxis, lumbar-pain, diarrhœa, and the chart which I show you, and which you will see is from Feb. 3rd to March 3rd, is closely similar to a typhoid chart. Allow me, in criticising this chart, to state it is more like typhoid than usual, because, not only does it show evening rise and morning fall, but it shows a definite rise to a certain height, which was, for a certain time, maintained, followed by a gradual lowering to the normal and a fading away by lysis, as we know typhoid does. What I ask would be any one's diagnosis of such a case, limiting his observations to the first month. I feel it would be typhoid; but this patient, as you will see by her chart, again relapsed—many typhoids relapse—and suffered from recurring febrile attacks. She was allowed out of bed, and walked the ward suffering from March 3rd, with recurring attacks of typhoid, typho ambulatories. Early in April she developed marked symptoms of tubercular disease of both lungs, and physical signs, which revealed only too clearly the disease as pulmonary phthisis. In the middle of May last, one month after leaving the

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hospital, I again examined her chest to find the presence of cavities distinctly indicated, and my patient soon to succumb to pulmonary disease. Here is a case where I have no doubt the onset of acute tuberculosis was mistaken for typhoid. I could invite your attention to other cases of tuberculosis where the tubercular disease has been attended by marked nervous symptoms, chronic meningitis with effusion, where the symptoms so closely resembled typhoid fever that it was impossible to distinguish the disease except by post-mortem examination.

I would lay stress upon the error made by so many in relying upon nocturnal exacerbation of temperature as an indication of typhoid. In talking over cases among ourselves, how we say, "I think the case is going to turn out typhoid, he had a rise of temperature last night, and his temperature is down this morning"; or, as a physician once said to me over a case where I held the diagnosis of typhoid in dispute, "Well, the temperature chart shows typhoid." Let me assert that no temperature chart *can* show typhoid. Look at the first twenty-one days of Alice Wilson. Look at Chart 3, which is that from a man who had acute pleuritis with effusion. Look at Chart 4, from a case of true typhoid, and forever disabuse your mind of the thought that there is any actual diagnosis value, so far as typhoid is concerned, in the temperature. Do not misunderstand me, gentlemen. I am not saying the clinical thermometer is useless in this disease. It can distinguish the difference between real and feigned disease; it can show you the degree of acuteness of your case; it can predict a hemorrhage as faithfully as the barometer can predict a storm, but it cannot write the diagnosis for you; it cannot supply brains.

I would say that sudden rises of temperature, followed by a sudden fall, would indicate in the system as it would out of the system, *rapid oxidation*. In the former case, the rapid oxidation of some morbid material which has entered the blood, or which has induced rapid oxidation of the normal elements of the blood and tissue, and I think this material will be found generally to be pus, or dead tissue element. What are the most reliable symptoms of typhoid fever? I assert, again, they are abdominal symptoms; they are tympanitis, pain in the right iliac fossa, gurgling diarrhœa, sometimes a rash; and, at the risk of appearing arbitrary, I will, with your permission, refer to some of these symptoms.

Tympanitis.—In this, I believe, we have the one symptom which is worthy the most special attention; it is not only of diagnostic value, but of the greatest value in prognosis. This tympanitis, in bad cases, comes on early in the attack, about the third or fourth day; the abdomen is then full, hard and tense, the recti muscles rigid, the percussion note drummy. Such cases run the worst course of any in typhoid; in these the prognosis is the gravest, and you can readily see the reason. I think you will admit that after you have passed the first ten days, the danger in typhoid is from one of three causes, viz., *hæmorrhage*, *perforation*, or *asthenia*. Now, if you have the bowel distended with gas, ad-maximum, you have clearly the most favorable condition possible for both hæmorrhage and perforation. The bowel can be paralyzed by distention, leaving its contents to irritate and aid the process of destructive inflammation. If the walls of the intestinal vessels have been weakened, they are more prone to rupture, because of the great distention of the bowel; and the ensuing hæmorrhage more severe from the same cause.

Regarding perforation, I believe the gas in the bowel is more often the cause than the process of ulceration. If you have seen many perforations from typhoid you will remember that most of them were perforations like pricks with a pin, or a trifle larger; the solitary gland had ulcerated away; the muscle had been irritated by the contents of the bowel remaining in a fermenting state in contact with it; the secretions had been suppressed, because of the same distention, and the point thinnest in the bowel gives way under the pressure. Now, is the gas always in the intestine? I think, in many cases, the peritoneal sac is enormously distended with gas. We see in cases of intestinal obstruction, enormous distention. In such cases we have no hæmorrhage, no perforation, and our patient dies, in their absence, presumably from distention. I am of the opinion that abdominal distention can cause death from mere pressure upon the sympathetic nervous system, reflexively slowing the heart's action.

Pain in the abdomen is pretty constant in typhoid, and its absence may be regarded as suspicious, the pain is often nearer the umbilicus than in

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the right iliac fossa; but if we have much ulceration going on we can scarcely avoid having pain, especially if the ulcerative process reaches the serous coat of the bowel, which is here the sensitive membrane, the same as the pleura is the sensitive membrane of the lung, but I can readily believe that in some cases when the lesion is more of a general inflammation and superficial, more of an enteritis pain may be absent.

As to the rash of typhoid, it is an unreliable symptom. I have seen it so marked that it resembled rubeola, save in the crescentic outline of the groups, whilst on the other hand, careful watching failed to reveal a single spot, and in these cases where the rash is typical, the symptoms are generally so well marked, that one does not require the appearance of the eruption to confirm the diagnosis. I think it may be stated generally, that it is in the severer forms of typhoid, the rash is most typical, whilst in mild cases it is most frequently absent.

Another point worthy of attention, is whether or not the typhoid poison may not produce some other disease. In many cases where typhoid appears to be a particularly severe type, the manifestations in the nervous system are also very severe, and perhaps the only marked indications of the disease. If we take those cases, where after the first day or two of illness, coma vigil, or acute delirium marks its advancement, we will find there is little tendency to severe abdominal lesion or symptom; although the patient may linger on for weeks, early death is the rule in these cases. Again, everyone must have noticed the special liability to severe pneumonic complications, where the type of the disease is severe; and this pnumonia also appears early, frequently terminating the case before the abdominal disease has progressed very far. Those cases where pneumonia comes on late—as a pure sequela—are in my experience, rarely well marked cases of typhoid, and in many of them I think there is room for doubt as to the correctness of the diagnosis of typhoid. I remember a case of consolidation of one lung, coming on at the sixth week, during a typhoid and terminating the case, but on post-mortem examination the consolidation proved to be not pneumonic, as thought, but tubercular, and limited to one lung. I do not wish to state that pneumonia cannot be a sequela to typhoid, but that it is more frequently an early than a late complication. Again I believe it is quite possible to have a septicæmia arise from typhoid. I mean a septicæmia similar in character to that due to direct pus infection, and am of the opinion that many lingering relapses in typhoid are from this cause. We know it is by no means rare to find a suppurating mesenteric gland near to a typhoid ulcer in the bowel, and there can be no reason why pus there should not enter the circulatory system. Again, where ulcerative endocarditis follows upon the disease there is generally evidence of irritating or septic material having entered the blood vascular system.

As to the lesion of softening and pulpy degeneration of the spleen, this is found in many other diseases besides typhoid, and in the latter is often absent; softening of the spleen is the result of high temperature, and should the temperature be low throughout, little change in the spleen need be looked for; it is one of the earliest organs to undergo pyrexial softening, and I do not think it is more predisposed to such change in typhoid than in many other diseases characterized by continued elevation of temperature. It is claimed by some that such tissue change can be entirely prevented by the continued administration of antipyretics, but upon the subject of antipyretics light has yet to dawn; it is a simple matter to reduce the temperature in any disease, but quite another thing to know if such reduction is beneficial; those, who in the administration of antipyretics have in mind the lowering of the temperature *only when its continued elevation threatens the integrity of tissue*, have grasped the great therapeutic principle underlying their employment, and I would question the soundness of that principle, commonly practised, which interperets the elevation of temperature as fever and the lowering of temperature as its reduction. If diseases of the zymotic type are changes involving the oxidation of morbific matter, I cannot but think that the lowering of temperature may lead to the storing up of that material and in the end to a greater pyrexial increase.

Thus would I outline some of the difficulties which beset us in our studies of typhoid fever, confident that this disease so common in its occurrence, is less thoroughly understood than many other diseases of less frequency, and as Charcot devolved out of those cases commonly called ataxic

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many other vastly different states of the nervous system, so, by careful study in the future, may this disease be resolved into more simple and primitive elements.

To sum up, gentlemen, what I wish to state is briefly this :

1. That save in those cases where death takes place from the action of the typhoid poison directly on the nervous system, there must be intestinal lesion to prove the existence of typhoid.

2. That with such intestinal lesion we will have distinct abdominal symptoms.

3. That acute tuberculosis and septicæmic states are often mistaken for ordinary typhoid.

4. That evening rise and morning fall of temperature, as a proof of the existence of typhoid, is deceiving.

In conclusion, let me express the hope that none will think too severely of me for not more closely following my instructions from the President of this Association to discuss "The Ravages of Bacteria in Blood and Tissues." We now trace almost every pyrexial state to its own peculiar germ, and I am convinced that a paper from me, dealing only with the habits, customs and reproductive methods of all of these various bacteria would, whilst, perhaps, interesting to a section of this meeting, not attain to any particular aim. On this account have I claimed the privilege of drawing your attention to a special disease which has been proved beyond question to be of bacterial origin, and if this short paper may evoke from those before me an expression of their various experiences in typhoid fever, I feel sure the time of this Association will have been well spent.

SAYRE'S "SHORT HIP SPLINT" AS AN EXTENSION APPARATUS IN FRACTURES OF THE HUMERUS.*

BY DR. C. M. SMITH, ORANGEVILLE, ONT.

Owing to the pressure of professional duties, I have been unable to prepare the paper which I proposed to present, and shall merely crave your indulgence for a few moments, while I explain the application of a well-known splint to another purpose than that for which it was originally intended by its inventor. The patient, one of several on whom I have applied a similar apparatus to the one shown, sustained a compound comminuted fracture, one and a-half inches above the condyle of the humerus, separating the capitellum from the trochlear surface and both apophyses from the shaft—the so-called T fracture. The accident happened on the 8th June, 1886, and was caused by the blow of a crank on its downward revolution, while the elbow rested in a bent position on a wooden framework projecting slightly over it at the same time.

This variety of fracture is one frequently followed by the "gun-stock" deformity, in which the external portion is tilted forward with its articulating surface directed forwards, and unites with the shaft and internal trochlear portion, in such a position as to cause anchylosis of the joint, with a marked prominence in the flexure and projection of the olecranon and insertion of the triceps backwards, so that the latter muscle describes a marked curve in its lower portion, with concavity posteriorly, while the joint remains fixed at an angle of about 140°. This occurs more frequently in youth, owing to the fact, that while ossification commences during the second year in the radial portion of the articulating surface, it does not appear in the ulnar portion until the age of twelve. Moreover, while the internal and external condyles ossify respectively at the ages of five and thirteen, the external condyle and articulating surface unite first, and it is not until the age of sixteen or seventeen is reached, that they unite with the shaft. The internal condyle does not unite with the shaft until the age of eighteen.

The wound in the soft parts was situated on the anterior aspect of the arm, about three inches above the joint, and admitted the index finger. The fragments were adjusted, an anterior and posterior concave, rectangular splint, made of tin, applied; a shoulder-cap, similar to the one now exhibited applied, with a perpendicular extension overlapping the upper arm of the elbow splint.

Extension was secured by attaching over all, along the outer aspect of the arm, the Sayre's splint, converting the perineal into an axillary pad and securing the swivel iliac counter-extension pad to the loop in the shoulder-cap. The strap was buckled with moderate firmness around the posterior aspect of the arm, above the elbow,

* Read at the meeting of the Ontario Medical Association, Toronto, June, 1888.

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while the semi-circular steel band afforded the lower *point d'appui*.

Subsequently large portions of the elbow splints had to be removed at the edges and under the elbow, in order to allow irrigation and the application of iodoform dressings. Extensive sloughing over internal condyle and olecranon ensued, and the destruction of osseous and soft parts was so great, as to allow the carbolized solution free passage from the site of the original wound through the posterior and inferior openings.

I was ably seconded in the attendance and subsequent dressings of the limb by Dr. Carbert and his son, to whose faithful services the saving of the member was in a great measure owing. The patient was ill-nourished, of a scrofulous diathesis and situated in the midst of most unfavorable surroundings. Owing to these circumstances the prognosis was for a long period doubtful, and amputation was seriously discussed more than once. However, by strict attention to the sinuses and a proper course of constitutional treatment, the condition of the parts warranted the removal of the splints in five weeks from the date of injury. Passive motion was then attempted, but the patient, who had all along proved incorrigible, would not submit to the process.

While the difficulty of maintaining extension is considerable in all oblique fractures of the shaft of the humerus, it is still greater in compound fractures, especially those occurring near the articular extremities. In several of my early cases I adopted the plan recommended by my old friend and classmate, the Secretary of the Association, and placed the limb in a position of full extension. While this plan secured apposition of the fractured ends in cases of injury situate in the lower fourth of the bone, it necessitated *bisement forcé* subsequently, in order to secure a useful joint. I have no doubt my brother practitioners from the rural districts will uphold me in this statement, that such an operation will be persistently described as "breaking the bone over again," and does not tend to elevate the surgeon's reputation. Moreover, with the anchylosis in a position approximating a right angle, passive motion can be supplemented by active efforts of the patient, made in carrying weights, which may be gradually increased as time progresses.

I should have been pleased had it been possible, to present to your notice another case, where the patient was a farmer of advanced years, residing some distance from the town, and in whom the fracture occurred about the junction of the middle with the lower third of tho humerus. The result which followed the means adopted and described in this article, exceeded my most sanguine expectations.

I had nearly forgotten an important precaution which must be observed, namely: in order to prevent angular deformity and risk of false joint, the forearm and lower fragment must be secured in a position as nearly as possible corresponding to a right angle; otherwise the extension applied would force the lower fragment backwards.

If I shall have succeeded in making any suggestion which may advance the cause of conservative surgery, I shall deem the object of this paper attained.

Correspondence.

OUR NEW YORK LETTER.

From our Own Correspondent.

NEW YORK, July 23rd.

July and August are quiet months in medical circles in this city. The meetings of the various medical societies are discontinued, the Colleges are closed, and most of the leading medical men are off on their vacation. New York, being the medical centre of this continent, something relating to her medical societies, hospitals, etc., may be interesting to your readers. There are thirty-six societies devoted to medicine and its branches in the city. The largest and the one most representative of the whole profession is the Academy of Medicine, whose building is at 12 West 31st Street. The building is centrally located, large, and well adapted for its purpose. On the first floor are two large rooms in which the meetings of the different sections are held. On the floor above this is the library, an excellent one containing some 27,000 volumes, and which is rapidly increasing in size. On the third floor is the reading room, where are about 200 medical periodicals from all over the world. Both the library and reading-room are open to the public, as are also the meetings of the society. Owing to the fact that mostly all doctors in New

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York are specialists, or devote themselves more or less to special branches, the Academy is split into ten sections, each section devoted to a specialty, and the members attaching themselves to the section they are most interested in. Dr. A. Jacobi is President of the Academy. Each section again has its own President, and corps of officers, and meets once a month. There are two general meetings a month. These meetings, together with those of some of the other societies, who meet here, make it so that there is a meeting almost every evening, and as the papers are always good and the debates interesting, the Academy is well attended.

There are in this city something like 113 Homes and Asylums for different classes of people,—homeless, orphans, insane, etc., and 49 Hospitals, and 26 Public Free Dispensaries. Lying to the East of the city and a part of the corporation, are a number of islands, splendidly adapted for the purpose they serve. North Brothers Island, to the North-east, affords a place of quarantine for small-pox and typhus. On Randall's Island are Idiot Asylums, and Orphan Homes. On Ward's Island are the City Insane Asylum with 1800 male inmates, The State Emigrant Hospital with 1000 beds, and the Homœopathic Hospital. Then on Blackwell's Island is the largest hospital of the city—Charity—with 1000 patients of all diseases. This hospital is best known for its venereal and skin diseases, of which there is a very large service. Among the hospitals in the city the largest is Bellevue, with 800 patients of all kind of diseases, excepting contagious; and although not so well equipped as some of the other hospitals, it has the most varied service, and affords clinical material for all three colleges. The New York Hospital is probably the finest, and is the most richly endowed hospital in the city. It has a good, large operating room, which is not the case with most of the hospitals, and a good surgical service, so that a good place to see operations is here. Roosevelt, opposite the College of Physicians and Surgeons is another of the wealthy and modern hospitals, has 170 beds and is built on the pavilion plan. Among the hospitals for special purposes, is the Woman's Hospital, 170 beds, magnificently equipped, and where gynæcological operations can be seen at almost every hour. Students and practitioners are admitted to the operations of these and of mostly all the other hospitals and dispensaries.

In New York there are over 2,000 physicians, besides a large number of Homœopaths and Eclectics, and it is not an uncommon thing to see the shingles of three and four doctors in one house. Incomes ranges from nothing to one hundred thousand dollars—a large number of the former, and one doctor, an eminent gynæcologist is said to receive the latter amount from his profession. A young doctor, commencing practice, pays for his office and bedroom, from $500 to $1200 a year rent, according to the locality of the neighborhood he lives in. Owing to the large number of dispensaries, and the rivalry between them to get large classes, the clinical material to be made use of is enormous. Nor are the patients who regularly attend dispensaries poor. Probably one half of them could and should pay for medical attendance, but because of the anxiety of attending physicians to build up large clinics, it is indeed rare that a patient is turned away because of the silk dress or seal skin coat she wears. This is all very well for the attending physician and students, but not so agreeable to the young doctor trying to pay a portion of his rent out of his income.

Among the better families, a trained nurse, in time of sickness, is just as indispensable as a doctor. Within the past few weeks, a training school for male nurses has, through the liberality of Mr. D. O. Mills, been opened in connection with Bellevue Hospital, and woman's particular field of labor is being invaded.

Canuck.

MUTUAL DEFENCE FUND.

To the Editor of the Canada Lancet.

Sir,—In a recent issue of your journal, I notice that several medical men throughout the Province had contributed to the "Leslie Fund," which is in itself very praiseworthy; but could not a fund be started for the defence of medical men who are unfortunate enough to be involved in such cases? I expected that the Medical Association, which recently met in Toronto, would have acted on the suggestions advanced a year ago by Dr. W. H. Henderson, of Kingston, the worthy President of the Association for '88, and organize a fund for mutual defence; but so far I have not seen that any steps were taken in that direction. In support of these suggestions, would it not be practicable for the College of Physicians and Surgeons, to

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whose fund we equally contribute, to put a certain amount aside, as a sort of sinking fund, to be used in the defence of any of its members when cases of malpractice are brought against them?

The College is fast becoming a wealthy corporation, and in what better way could it show interest in its members than by devoting a certain amount for the above purpose? We would then feel individually, that in the Council we have a friend that is willing to stand by its members, for, as instanced by the case of Dr. Leslie, any one of us is liable to be made the defendant in a similar case, although all proper care and skill have been exercised.

There are, no doubt, cases of negligence and carelessness shown by some practitioners, who perhaps get but their just deserts by being involved in an action; but it is not for the defence of such that the fund would be used; let money be paid out of the fund only after a recommendation to that effect has been brought in by the committee appointed for the purpose of investigating the cause of action, whether the physician had taken all reasonable care and shown reasonable skill in handling the case.

By such action on the part of the Council, the cost would be shared equally by each member, and would amount to very little; if necessary, an addition to the annual fee could be levied.

Thanking you for the space in your valuable journal, I remain, yours,

ALEX. FORIN.

Collingwood, June 28th, '88.

Selected Articles.

REMARKS ON WHITEHEAD'S OPERATION FOR HÆMORRHOIDS.

BY ROBERT F. WEIR, M.D., NEW YORK.

Last year, in giving my experience of four months' operative work at the New York Hospital, I reported that after trying Mr. Whitehead's plan of operating for hæmorrhoids I had become dissatisfied with the procedure, and had abandoned it in favor of the older and more extensively tried ligation method of Allingham. I beg again to report that after having tried Whitehead's method according to his more recently elaborated plan, I now desire to reverse my judgment, and to speak in favorable terms of the operation.

Mr. Whitehead's first paper on "The Surgical Treatment of Hæmorrhoids" (published in the *British Medical Journal*, February 4, 1882), describes the operation, which he had then practised for nearly five years, somewhat as follows: After stretching thoroughly the sphincter, the hæmorrhoidal masses, involving the whole circumference of the lower bowel, were mapped out into four irregular and unequal lobes. These were divided into four segments by longitudinal sections in the axis of the bowel, and in the furrows marking the intervals between the several lobes. This was accomplished without the loss of any blood. Each portion was then grasped in succession by a ring-forceps and dissected with scissors, at first transversely from the anal margin, and then the dissection was continued upward in the cellular plane to the highest limits of the hæmorrhoidal growths, in some cases to a distance of an inch and a half. Each segment was thus converted into a quadrilateral, wedge-shaped mass, the base below consisting of the hæmorrhoid, and the apex above of the healthy mucous membrane of the bowel. The mucous membrane at the highest point was next transversely divided, leaving the hæmorrhoids simply attached by loose cellular tissue, and the vessels proceeding from above and supplying the mass below. The forceps containing the hæmorrhoids was then twisted until this connection was severed, and the hæmorrhoids then removed. The divided surface of mucous membrane was next drawn down and attached by several fine silk sutures to the skin border at the verge of the anus.

The other portions having been treated in the same manner, the operation was completed.

My first series of operations was undertaken after perusal of the above directions. I did not find that it was easy or at all satisfactory to attach the divided mucous membrane to the verge of the anus, and perhaps from my defective appreciation of this operation I do not fairly carry out its details into thorough effect. It was, therefore, not until Mr. Whitehead had published in the *British Medical Journal* of February 26, 1887, an article entitled "Three Hundred Consecutive Cases of Hæmorrhoids cured by Excision," that I learned better how to operate according to his method, which he then more completely detailed in the following words: "After the sphincters have been thoroughly paralyzed by digital stretching, by the use of the scissors and dissecting forceps the mucous membrane is divided a short distance from its junction to the skin, for it is very important," he says, "that no skin should be sacrificed, however redundant it may appear to be." In this second paper it will also be observed that the quadrilateral section of the hæmorrhoidal masses has been abandoned, and exsection of the lower portion of the rectum is accomplished *en masse*. The further steps of the operation are thus conducted:

The external, and commencement of the internal,

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sphincters are, after the liberating cut about the anus, exposed by a rapid dissection, and the mucous membrane and attached hæmorrhoids, thus separated from the submucous bed upon which they rested, are pulled bodily down, and divided points of resistance being snipped across, until they are brought below the margin of the skin at the anus. The mucous membrane above the hæmorrhoids is now divided transversely in successive stages, and the free margin of the severed membrane above is attached, as soon as divided, to the free margin of the skin below by a suitable number of sutures. The complete ring of pile-bearing mucous membrane is thus removed in successive snips. The bleeding vessels throughout the operation are twisted when divided. The operation is done as is usual in the lithotomy position. Before the wound is closed iodoform is blown in between the raw surfaces. For the stitches carbolized silk is used. These are not taken out. They are allowed to come away of themselves without further interference. In the three hundred cases reported by Mr. Whitehead not a single death or instance of secondary hæmorrhage, or any complication, such as ulceration, abscess, stricture, or incontinence of fæces has occurred.

Since last October I have had occasion to resort to this operation in six severe cases of hæmorrhoids. The first occurred in a man, aged thirty-two, who had had hæmorrhage from the rectum, to a greater or less extent, for nearly ten years, with occasional intervals of freedom from the loss of blood. On October 28th, an operation according to Whitehead's method (see Figs. 1 and 2) was done, with the removal of nearly three-quarters of an inch of the entire circumference of the rectum, which contained throughout evidences of hæmorrhoidal changes, marked in four places by swellings, which, prior to the removal, were as large as a hickory-nut, and in other parts by numerous varicose veins of varying size. At first there was some difficulty in dissecting up the mucous membrane from the protruding pile, and, in fact, this cannot be done, as the hæmorrhoid involves the mucous and submucous tissues. It is necessary to go somewhat through the pile, looking out carefully for muscular tissue, and keeping to the inside of this until the mucous membrane, recognized by its lighter color, is reached above the pile region. After this latter membrane has been found its separation from the muscular tissues is very easy, only an occasional snip of the scissors being required to detach adhesions, muscular or otherwise. Much less pain was experienced after this operation than is often observed after the operation of ligating piles.

On the eighth day the line of suture was entirely healed. The stitches were not removed, but were allowed to come away of themselves. A week later he was discharged from the hospital perfectly well, with a clean and well-shaped anus, only one or two stitches being still found attached to the skin. These, however, were not troubling the patient. He was seen several months later, and the anus presented a perfectly satisfactory appearance.

The second case was met with in a man, aged, thirty, whose hæmorrhoidal protrusions occurred

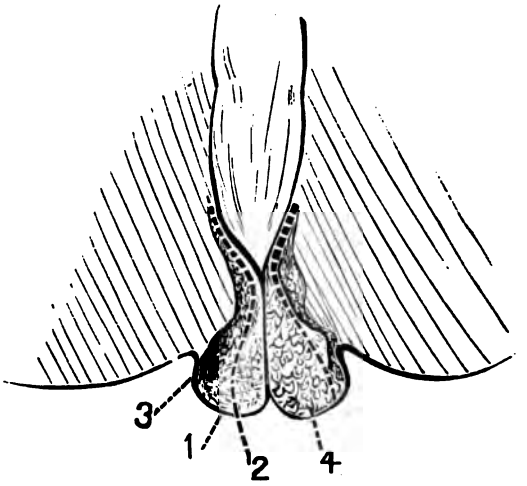

Fig. 1.—1, Muco-cutaneous junction, exaggerated; 2, line of incision, a short distance from muco-cutaneous junction; 3, external sphincter muscle; 4, protruding pile.

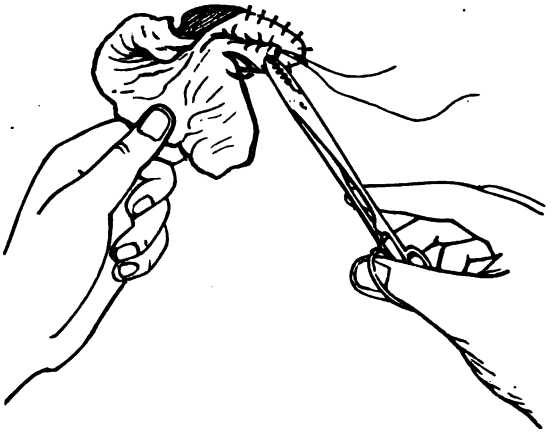

Fig. 2.—Mode of cutting off pile-bearing mucous membrane and stitching it in repeated sections.

one year ago after straining at stool. They have continued at times to bleed. Associated with these was a painful sensation in the rectum. By examination a circle of moderate-sized hæmorrhoids was seen extending all around the lower edge of the rectum, two of which were ulcerated.

On November 5th, Whitehead's operation was performed according to the manner above described. Nearly an inch of the rectal mucous membrane was removed. Bleeding vessels to the number of

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two or three only required to be twisted. The mucous membrane was cut away half an inch at a time, and stretched to the skin by interrupted fine black silk sutures, and so on until the whole circumference of the bowel was removed. The patient progressed to recovery without any special pain or reaction; urinating voluntarily accomplished throughout. On the seventh day after the operation the bowels moved without pain, and on the twelfth he was out of bed and walking about. The stitches were removed as the wound was entirely healed, and he was discharged from the hospital on November 23rd.

The third case was a man, aged forty-eight, who in addition to his having hæmorrhoidal swelling of considerable size, just within the sphincter, which protruded and gave rise to frequent hæmorrhages, and to a certain amount of pain, had also sensations of uneasiness higher up towards the top of the pelvis, with discharges at stool of rather small tape-like fæces. He complained also of occasional attacks of constipation and colicky pains, with distention of the abdomen, which was relieved by medicine or by spontaneous diarrhœa. Being unable to satisfy myself by digital exploration whether or not a stricture of the rectum somewhat higher up existed, the patient was etherized, and nothing having been felt by palpation in the abdomen, a manual exploration of the rectum was made. By the gradual stretching of the sphincter and of the bowel the hand was introduced up to the knuckles, and slightly beyond them, though the thumb was not passed within the intestine. By this insertion the promontory of the sacrum was recognized, and with the other hand on the abdominal wall nothing was felt in this region. Believing, therefore, to have excluded the suspected stricture, the removal of the hæmorrhoids was undertaken after Whitehead's method. A certain amount of vertical laceration had occurred from the excessive distention of the anus, so that the operative procedure was conducted more after the original plan of Whitehead than after his later procedure. About one inch of the rectum was removed in this way. A longitudinal slit having run up beyond this point, it was sewn together by sutures. Only one suture was required to a bleeding vessel; the others, three in number, were secured by torsion. A plug of iodoform gauze was introduced into the rectum, and an antiseptic compress and bandage applied. The patient suffered a good deal of pain after the operation, and required once to have the urine drawn. The seventh day he had a movement of the bowels, with but little pain On the eighth day the wound was found to have united primarily, with the exception of an area of one-third of an inch in diameter, which had been caused by a stitch giving away. On the thirteenth day he was up and about. The sutures came away spontaneously.

Case IV.—A man, aged forty-five, had been troubled for several years with bleeding hæmorrhoids of large size. When protruding they resembled, in size and appearance, a small tomato. The operation was done as in the previous case. Nearly an inch of the lower end of the rectum was removed. The line of junction was effected by more numerous sutures than had been used in the preceding cases. No reaction whatever followed. The patient urinated voluntarily, and no pain was felt. On the third day he was sitting up in bed, writing, and on the sixth day was about. The majority of the sutures were removed by me before the tenth day. Primary union took place, with a very well-shaped anus and smooth bowel beyond the point.

Case V.—A burly, strong man, with large hæmorrhoidal protrusions, bleeding freely, which had lasted for several years. In this instance a departure was made from the ordinary stage of the operation in this, that instead of cutting off the mucous membrane in small segments, and then suturing the same to the skin, the whole circumference of the detached rectum was removed and then the sutures applied. This necessitated the use of clamps to seize and draw down the otherwise retracting mucous membrane, and thereby giving rise by its pressure to a certain amount of damage to the mucous membrane. The procedure, however, rendered a trifle more rapid the operation, which in itself is somewhat a tedious one.

Case VI.—Was a man, aged forty-seven, who had been troubled by large piles coming down and being caught in the sphincter, thereby giving rise to a great deal of annoyance, though not complicated by much bleeding. It was supposed that Allingham's operation might have sufficed for this case. After stretching, however, the sphincter by gradual pressure in various directions, the hæmorrhoidal mass was seen, consisting of three very large piles, and one small one, and further, that the whole zone of the rectum was in a varicose condition. Whitehead's operation was thereupon resorted to, and was accomplished with a little more difficulty than usual, from the oozing of blood from the numerous divided veins. This patient was catheterized during the first twenty-four hours, though, I believe, with a little more effort, assisted by the kneeling posture, he could have emptied his bladder without this assistance. The subsequent progress was free from pain. The patient was able to sit up in bed squarely upon the affected part at the end of the third day. He was out of bed and dressed within a week from the operation. The stitches were not removed. They discharged themselves spontaneously.

While for the less severe cases of hæmorrhoids the operation of injection with carbolic acid (and preferably with the 1 to 20 solution) is to be first thought of, and while for the more decided form

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of this disease Allingham's method yet stands unequalled, yet for the extensive conditions of hæmorrhoidal disease met with in the preceding cases, and which have been hitherto treated by tying off three, four, and sometimes more masses, I believe that greater efficacy and greater permanence of cure will be accomplished by the resort to Whitehead's method, and that less after-discomfort to the patient will be felt than by the well-known method of ligature as practised by Mr. Allingham. It is true, with this rather brief experience, the admission is to be made that the operation of Whitehead has taken me much longer time to accomplish than the older operation of tying and removing hæmorrhoids. Increased experience has, however, taught me that greater rapidity of execution can perhaps be accomplished by a manœuvre which doubtless Mr. Whitehead practises, as it is so self-evident, but which he does not mention. It is this: after separating the mucous membrane at the anus by scissors, all around, then at one limited place conduct the dissection deeper, and in an upward direction, until the normal mucous membrane of the bowel is reached. From that point, by means of the finger-nail, or by the end of a blunt-curved scissors, the mucous membrane can be stripped from the external tissues down close to the circumferential initial incision about the anus, when any intervening tissues can be cut through quickly with the scissors. In this way, proceeding right and left, the separation of the bowel in the last two instances has been brought about with decidedly increased rapidity and certainty.

I have been surprised to find how small, after dividing the mucous membrane, the arteries entering the piles become. Palpation of the same through the rectum, prior to their section, had led me to expect them to be of a decidedly increased volume; but with the open section they have not only shown themselves quite small, but they will often spontaneously cease to bleed. It is seldom that they require to be twisted or tied with catgut; certainly not more than one or two in the course of the operation, and these have, in one or two instances, been closed permanently by the pressure of a clamp for a few minutes.

After quite an extensive separation of the rectum, even to some distance above the line of section, it has been found unnecessary to introduce any drainage. In none of my cases have I dusted them with iodoform, as Mr. Whitehead has suggested, and when placed in position prompt union occurred, though the parts were bathed with the usual sublimate solutions—1 to 5,000. The tabs of skin that have been preserved for the final union of their edges to the mucous membrane often remain swollen for a week or ten days after the operation, and may excite some apprehension on the part of the surgeon for the patient that a mass of external reminiscences of the sufferer's past troubles might remain. In three cases where this condition has been watched they have in time disappeared.

As to the possibility of the formation of a stricture, especially where, as in one of my cases, a certain failure of primary union occurred in two spots in the circumference of the wound, I felt some apprehension; especially as this is a condition of affairs that I have encountered a number of times in patients who had been operated upon by surgeons of a past era, by the older method of ligation, so zealously carried out that no mucous membrane was left between the various hæmorrhoidal tied-off bunches. But Mr. Whitehead's positive statement must be kept in mind that this has not been observed in any of his large number of cases. He, however, lays stress upon the necessity of making the primary incision in the mucous membrane near to the skin of the anus, and not in the skin itself, since he believes, and I should think with justice, that undue contractions are more apt to take place when the annular cicatrix is formed at the expense of the integument.

A slight caution I may give, based upon an experience in rectal operations generally, that the bowels should not be moved by any purgative the day of the operation, as is commonly advised. This had better be done the day previously, if at all. Should this error have been brought about, as sometimes it has occurred to me, from a too zealous nurse, it is better to thrust a sponge some distance up the bowel at the beginning of the operation. This preserves the wound from infection, and the surgeon perhaps from profanity.—*The Medical Record.*

HEART TONICS.

BY J. C. MULHALL, M.D., KANSAS.

To present you with even an abstract of all that has been written within the last two years concerning the subject of my paper would impose on you a wearying and confusing detail. A number of entirely new drugs have been introduced, and the more intelligent use of several almost forgotten ones has been revived. Observers, the world over, having tested these various drugs, have rushed pell mell into print with their conclusions, and the proverbial disagreement of doctors has resulted. In the case of each drug, I have taken into consideration the conclusions of one or more admitted authorities, and have tested for myself such conclusions, only, however, at the bedside.

That there exists a necessity at times for a substitute for digitalis, equally powerful with that magnificent drug, will be readily admitted by every one who has been much concerned with the

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treatment of heart disease. That many lives have been suddenly shortened through the cumulative action of digitalis cannot be denied. Who has not seen his anasarcous patient, with failing heart and sluggish kidneys, revive under the influence of digitalis, his pulse beat grow slower, stronger and more rhythmical, his urinary secretions augment, his dropsy decline, when all at once the happy friends are thrown into alarm at seeing the patient grow nauseated, vomit, and refuse longer to eat? What chance have the weary heart walls for the nutrition that is to give them more permanent strength than that afforded by a drug, when the alimentary canal refuses to obey its functions? We are compelled to withdraw digitalis and frequently to await the return of the stomach to its duties, before again venturing to administer the drug. The delay may be fatal. The heart may again rapidly fail to a greater degree than before, and be beyond the help of tonics. I have in my mind two individuals who having thus experienced nausea and vomiting, were never again able to take even a single dose of digitalis.

Again, with certain cases we are unable to get the happy effects which in the vast majority of cases we do get from digitalis. Physicians have with reason, therefore, sought to find a drug which, if not equally potent, was at least a powerful ally. This list experimented with includes convallaria majalis, adonis vernalis, the various salts of caffeine, sulphate of sparteine and strophanthus hispidus. Before the introduction of the last named drug I had frequently prescribed convallaria and adonis vernalis. I mention both in the same breath, for, as far as I could determine, the only clinical difference was that the diuretic effect of the adonis vernalis was far better marked than that of the convallaria. The first great objection was their abominable taste, and in the fewest cases I treated, the stomach very quickly exhibited repugnance to their continued administration. It goes without saying that like in pulmonary phthisis, so in the individual with ruptured compensation and failing heart muscle, the first great avenue of approach, the stomach, must be maintained in tolerant and vigorous condition. Both drugs certainly slowed and made more vigorous the heart's action, and are justly entitled to the name, cardiac tonics. Though they seemed to act more quickly than digitalis, their beneficial effect also seemed to cease at once with their use, thus differing in an important way from digitalis. Again, their tonic effect on heart and arteries was not nearly so well marked as that of digitalis, and they therefore never exhibited such prompt and magical relief to cardiac dyspnœa or dropsy as we often see from digitalis. I should say that at best they were poor allies to digitalis and very inefficient substitutes for strophanthus, caffeine, or sparteine.

I have used but one salt af caffeine, the citrate, in quantity not exceeding twenty-five grains, usually fifteen, in twenty-four hours, and have administered it in five cases, not a large number but sufficient to enable me to call it a valuable adjuvant in the treatment of heart disease. It acts much as digitalis does, being a heart regulator and diuretic, but again, though acting more promptly than digitalis, it did not seem to me to produce so slow, regular and powerful a pulse beat as the latter. It was in each instance well borne by the stomach. In one case, it seemed to be completely useless, and though in the same case, one of mitral regurgitation in a child, the substitution of digitalis was more efficient, compensation was never established and the patient died.

Five years ago a woman aged 31, and her brother aged 22, both the subjects of mitral stenosis came under my observation, and to the present date have remained my patients. Some months since I was called to see the woman who was in the seventh month of her third pregnancy, on account of alarming dyspnœa, and increasing œdema of the lower extremities. Judge my astonishment when I found the loud, harsh, jarring, presystolic murmur, which in this very patient I had often demonstrated to various students, to have completely disappeared. There existed, however, the constant signs of mitral stenosis, and furthermore that of a failing right ventricle, an occasional tricuspid regurgitant murmuring being audible. This patient took during the remaining two months of her pregnancy five grains citrate caffeine three times daily with the happiest effects upon her circulation. Her physician after her delivery, fearful that the caffeine might not prove powerful to carry her through the trying ordeal, with my consent substituted digitalis for a month succeeding. I may add that, having called on her six weeks after delivery, I found again the old familiar presystolic murmur. I decided on caffeine as her heart tonic, from the fact, that previously digitalis had on several occasions caused her nausea and loss of appetite. How much this heart tonic had to do with her full term and delivery I cannot say; but it seemed hardly possible to me that a woman with mitral stenosis, and a failing heart at the seventh month, could without some such assistance have happily completed gestation, and the citrate of caffeine seemed to meet the indications perfectly.

In combinations with squill and acetate of potash its diuretic effects were well marked.

Used alone, as compared with digitalis, I did not think its diuresis so well marked. In one case of combined aortic and mitral regurgitation, where there existed much precordial pain and distress, where relief to this latter symptom did not follow the administration of digitalis, the patient asserted that the substitution of caffeine was a most happy one, since his cardiac pain vanished on the third day of its administration.

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With sulphate of sparteine I have had but one experience, not having been able to procure the drug, a fact I regret, since the reports of Prof. Germain Sée would lead us to believe that its tonic effect on the heart was remarkable. He announced firstly, that its reparative effect on the heart and pulse was more marked, prompt and lasting than digitalis or convallaria; secondly, that in the immediate regularization of the cardiac rhythm no remedy can be compared with it; and thirdly, that it was acceleratory to the heart beats.

My one experience was on a patient suffering aortic regurgitation and obstruction and also mitral regurgitation. The heart was enormously enlarged, and its tumultuous, irregular, intermittent action, 96 to the minute, most distressing to the patient. Anasarca was general, ascites to a moderate degree, and œdema at the base of both lungs. Here I thought was a heart whose rhythm needed control, and confident in the recommendation of Prof. Sée, I administered one-half grain of the sulphate of sparteine three times daily, and I must say with disappointment. The pulse remained intermittent, full at one beat, empty at another, and as before 96 to the minute. After three days trial I substituted digitalis and the bromides with good effect. But one may judge nothing from one case, and indeed this case may not have been an appropriate one for the remedy.

Immediately upon reading the paper of Professor Fraser, of Edinburgh, on the remarkable results achieved by him with strophanthus in the treatment of cardiac dropsies, Mr. J. M. Good, of St. Louis, procured from Lehn & Fink, of New York, a reliable tincture made by Merck, of Darmstadt, this being the preparation which I have used in twenty-one cases of various cardiac disturbances.

Professor Fraser's general conclusion was that whilst it was a true heart tonic, like digitalis, unlike the latter it did not increase arterial tension.

Dr. Leon Rosenbusch, in the *Berliner Klinische Wochenschrift*, Feb. 13, 1888, makes the following conclusions: 1. It has a marked action upon the heart, increasing the power of and lengthening the systole, increasing the arterial tension and slowing the heart's action. 2. It strengthens the heart muscles and regulates its work. 3. It acts as a diuretic in cardiac disease, but very feebly in kidney disease. 4. It does not disturb digestion as other heart poisons do, especially digitalis. 5. It may be given for weeks without giving rise to cumulative action. 6. It is best employed in the form of a pure tincture in doses of 10 to 20 drops three times daily. 7. It is less vigorous in its action than digitalis, and is therefore indicated especially in those cases in which digitalis has not yet been tested. 8. It maintains, especially in severe disturbances of compensation, the effect of digitalis which has previously been administered. 9. The alcoholic tincture should be employed. 10. In stenosis of the aortic valves its action is negative; as it lengthens still more the systole, it should not be employed in this disease.

With these conclusions, I may say that my own humble experience mostly coincides. I am not sure however that it increases arterial tension, for it is in a class of cases where arterial tension is a marked feature, namely, chronic diffuse nephritis with sequential heart disturbances that I have seen the most brilliant effects in slowing the heart's action. I refer particularly to one of the phases in Bright's disease with general arterial sclerosis and hypertrophied heart, wherein sudden attacks of painful palpitation with pulse extremely irregular and increased to from 120 to 160 beats per minute, possibly a uremic phase, lasting sometimes for days, nearly always occompanied with a nausea that rejects digitalis. In four such cases five drop doses of tincture strophanthus repeated every six hours, rapidly slowed the heart, produced a regular pulse, and increased the flow of urine. It might, therefore, seem that since it controlled these hypertrophied hearts, it had a marked influence on the cardiac ganglia. In a case of acute dilatation of the heart, the first attack occurring without discoverable cause at the menopause in a lady whom I have treated in three such attacks, the first two with digitalis and the last with strophanthus, the latter acted far more promptly and far more agreeably to the patient. It has advantages over all other cardiac tonics in its palatability, smallness of dose, and acceptance by the stomach. I have not seen the astonishing diuretic results reported by Prof. Fraser, where after one full dose, the secretion of urine continued to augment for several days. After all neither strophanthus nor other heart tonic can be compared in power to digitalis. They have certain advantages, they act more promptly, they are not cumulative, they are better borne, caffeine and striphanthus do not nauseate and do not require the careful supervision of the physician as does digitalis. Hence where a gentle cardiac tonic is to be exhibited for a long time, one other than digitalis would seem to be indicated. They are therefore very valuable allies. But when the heart is trembling on the verge of fatal asystole, when its quivering muscular fibres have almost given up the contest against the unyielding obstruction, no such powerful reinforcement has yet appeared on the field as digitalis.

When on the other hand it has lent its power to the heart, and its cumulative effect is dreaded, or the digestive tract is disturbed by its presence, the compensation that it has effected can then best be carried on, I think, by strophanthus.—*St. Louis Courier of Medicine.*

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METHODS OF DISINFECTION RECOMMENDED BY THE MICHIGAN STATE BOARD OF HEALTH.

In diphtheria the discharges from the throat, nose, and mouth are extremely liable to communicate the disease, and should be received in vessels containing a strong solution of copperas (sulphate of iron), or on soft rags or pieces of cloth, which should immediately be burned.

In typhoid fever and other dangerous communicable diseases the discharges from the kidneys and bowels are dangerous, and should therefore in all cases be received upon papers or old cloths and promptly burned, or be received in vessels and thoroughly disinfected as follows: Disinfect each discharge from the bowels by thoroughly mixing with it at least one ounce of chlorinated lime in powder, or one quart of "Standard Solution No. 1,"* recommended by the American Public Health Association's committee. In country districts, villages, and small cities, where the privy is not far distant from a well, discharges should not be thrown into a privy-vault, but after being disinfected, they should be carried a greater distance from any source of drinking water and then covered with earth. Rags, closet-paper, or other similar material used about the patient, should be immediately burned. Privies, water-closets, cess-pools, gutters, drains, sewers, etc., should be frequently and liberally treated with copperas solution. Sulphate of iron (copperas) dissolved in water in the proportion of one and a half pounds of the sulphate to one gallon of water, is a good solution for chamber-vessels, water-closets, etc. When much is wanted it may be prepared by hanging a basket containing about sixty pounds of copperas in a barrel of water.

Nurses and attendants should be required to keep themselves and their patients as clean as possible; their own hands should frequently be washed and disinfected by chlorinated soda. Soiled clothing, towels, bed-linen, etc., on removal from the patient, should soon be placed in a pail or a tub of boiling-hot zinc solution, made in proportions as follows: Water, one gallon; sulphate of zinc, four ounces; common salt, two ounces. Soiled clothing should, in all cases be disinfected before sending away to a laundry, either by boiling for at least half an hour (it may well be boiled in a zinc solution), or by soaking in a strong solution of chlorinated soda.

Cotton, linen, flannels, blankets, etc., should be treated with the boiling-hot zinc solution, introducing them piece by piece, securing thorough wetting and boiling for at least half an hour. Heavy woolen clothing, silks, furs, stuffed bedcovers, beds, and other articles which cannot be treated with the zinc solution, should be hung in the room during fumigation, pockets being turned inside-out and the whole garment being thoroughly exposed. Afterward they should be hung in the open air, beaten and shaken. Carpets are best fumigated on the flour, but should afterward be removed to the open air and thoroughly beaten. Pillows, beds, stuffed mattresses, upholstered furniture, etc., after being disinfected on the outside, may be cut open and their contents again exposed to fumes of burning sulphur. In no case should the thorough disinfection of clothing, bedding, etc., be omitted. Infected clothing and bedding have been known to communicate diphtheria months after their infection. The body of a person who has died from scarlet fever, diphtheria, smallpox, or typhoid fever, should be wrapped in a cloth wet with a strong solution of chlorinated soda, or with "Standard Solution No. 1," or with zinc solution. The zinc solution should be made in proportions of one half pound of chloride of zinc to one gallon of water, or:—Water one gallon; sulphate of zinc, eight ounces; common salt, four ounces.

TEMPORARY SHELTER DURING DISINFECTION.

Disinfection of a room always necessitates vacating it, and sometimes makes it impossible to remain in adjoining rooms, therefore in some cases it seems essential to have hospital, tent, or other temporary shelter for the inmates of infected houses, where bathing, disinfection, and washing can be done while such houses are being disinfected and put in order. On this subject local boards of health should be consulted, and should be prepared to act.

DISINFECTION OF ROOMS.

After a death or recovery from a dangerous communicable disease the room in which there has been a case of such disease whether fatal or not, should, with all its contents, be thoroughly disinfected by strong fumes of burning sulphur. Rooms to be disinfected by sulphurous fumes must be vacated by persons, but the contents should all remain for disinfection. For a room ten feet square at least three pounds of sulphur should be used; for larger rooms proportionately increased quantities, at the rate of three pounds for each one thousand cubic feet of air-space. Hang up and spread out as much as possible all blankets and other articles to be disinfected; turn pockets in clothing inside out, and otherwise facilitate the access of the sulphurous fumes to all infected places. Close the room tight, place the sulphur in iron pots or pans which will not leak, supported on bricks over a sheet of zinc or in a tub containing water, so that in case melted sulphur should leak out of the pot the floor may not be be burned; set the sulphur on fire by hot coals or with aid of a spoonful of alcohol lighted by a match; be careful not to breathe the fumes of the burning sulphur, and

*Dissolve cloride of lime of the best quality in soft water in the proportion of four ounces to the gallon.

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when certain the sulphur is burning well leave the room, close the door, and allow the room to be closed for twenty-four hours. The privy should be disinfected by fumes of burning sulphur. It is especially important that the *contents* of the privy be disinfected. For this purpose use four ounces of the best quality of "chloride of lime" to each gallon of material in the vault.

MEDICAL NOTES.

If patient can cross the legs there is *rotation in the hip joint* of the limb raised. (Allis.)

For *constipation of infants*, Prof. Parvin recommends, as a simple expedient, rubbing the abdomen with a little sweet oil.

Prof. Da Costa says the proper method of examining a patient for *dilatation of the stomach* is by percussion after he has drunk a large quantity of water.

Flapping of alæ of nose is indicative of *disorders of respiration* in infants, while pinched appearance of mouth is present in gastro-intestinal troubles. (Parvin.)

Professor Bartholow recently treated a case of *hæmaturia*, due to acute congestion of the kidneys, by giving 10 grains of quinine three times a day, which was followed by rapid recovery.

The best astringent for *chronic diarrhœa* of children is extract of hæmatoxylon. This remedy dyes the discharges and also discolors the napkins. Therefore, do not be scared. (Parvin.)

Frequently the direction of blood vessels will aid in distinguishing the bowel from the sac in *hernia*. The vessels of the bowel are arranged transversely, while in the sac they are more longitudinal. (Brinton.)

Dr. Rex states that he has had very gratifying results by treating *convulsions of children* in the following manner: Give the child a hot bath, or, if this be inconvenient, a hot mustard foot-bath may be substituted; then give 3 grains of sodium bromide every ten or fifteen minutes until the convulsions cease.

A case of *muscular rheumatism* presented to the clinic was treated by giving, internally, 20-grain doses of muriate of ammonium three times a day, and, externally, a liniment containing —

℞ Aquæ ammonii, . . . f ℥ j
Spirit. rosmarini, . . . f ℥ iij
Liniment. saponis, . . f ℥ ij. M.

One of the best methods of removing *foreign bodies* from the external auditory meatus, when the tympanic membrane is intact, is by injecting water in the ear; which, in most cases, will pass between the membrane and foreign body and force it out (Dr. Hearn.)

For a case of *enlarged spleen*, Prof. Da Costa ordered half-drachm doses of fluid extract of ergot, three times a day; 4 grains of quinine each morning, and over the abdomen—

℞ Iodinii, ... ℥ ss
Ung. belladonnæ,
Lanoline, . . āā . . ℥ ss. M.

For a case of *idiopathic epilepsy* in a boy aged eleven, Prof. Da Costa ordered a prescription:—

℞ Potassii bromidi, . . . gr. xx
Tinct. cannabis indicæ, . gtt. ij
Syrup., . . . q. s. ad., f ℥ ij. M.
Sig—Take three times a day.

Milk and vegetable diet. To prevent the paroxysm, inhale five minims of nitrite of amyl.

The best remedy for *tapeworm* is pomegranate, but must be given in the proper way. Clean out the canal thoroughly, and for this the soda salts are good, preferably the phosphate of sodium to dissolve the mucus in the canal, which must be given in the intervals of digestion, followed by a purgative; then give a strong decoction of pomegranate bark, four ounces of the fresh bark to one pint of water, and boiled down to eight ounces; follow this by a purge. (Bartholow.)

For *chronic eczema*, Prof. Holland recommends the following treatment: Soften crusts with oleaginous preparation or bread poultice, and remove them; then apply the following:—

℞ Liq. carb. deter., . . . f ℥ j
Aquæ rosæ, ... f ℥ viij.

The liquor carbonis detergens is made of coal tar, 4 parts; tinct. soap bark, 9 parts. Shake together and let stand for eight days; then strain, and it is ready to dilute for use.—*Coll. and Clin. Rec.*

CARBOLIC ACID IN THE TREATMENT OF ENTERIC FEVER.

The patient is of course confined to bed, in a well ventilated room if possible, and every effort is made to insure that no particle of solid food of any kind is administered by over anxious relatives. The diet is restricted to milk, toast-and-water, barley-water, and calf's foot jelly; new milk is always insisted upon as the main support, from a quart to three pints being giving to an adult in the twenty-four hours. The carbolic acid is ordered in a mixture, of which this is the prescription: Take of carbolic acid (Calvert's extra pure for internal administration), twelve minims; tincture of iodine (B. P.), sixteen minims; tincture of orange-peel, one drachm and a half; simple syrup, three drachms; water to eight ounces: the dose to

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be an ounce every four hours for the first fortnight, or until the urgent symptoms yield, when the same dose is administered three times a day. The good effect is manifested almost immediately. In two days the pulse shows and gains in strength, the temperature falls, the tongue becomes moist, all diarrhœa cases, and the general condition of the patient is so mnch improved that, as a rule, in a week all anxiety is at an end, and the case progresses quietly towards recovery. It sometimes happens that a case is cut short by this treatment as suddenly as is a case of acute rheumatism by the exhibition of salicylate of soda; but more generally the fever runs its course of thirty days before all danger of relapse is past, and I have found it better to continue the medicine until the thermometer shows no rise of temperature for three or four clear days. If the pulse at any time rises above 120, the temperature 105°, or if sordes form on the lips or teeth, either champagne or brandy, and sometimes both, are given every two hours. This, however, is rarely necessary. Complete abstinence from any kind of solid food until all traces of fever have disappeared is insisted upon, and when the patient does return to his ordinary diet, the resumption of solids is a gradual progress from soup to boiled sole, chicken, mutton, and soft vegetables. Beef-tea is carefully avoided so long as the temperature is abnormal, as it so frequently gives rises to troublesome diarrhœa. The carbolic acid combination is usually taken without trouble or difficulty. A day or two after commencing with it patients always complain that every thing they take tastes of the medicine; this is unavoidable, and need give no anxiety, unless vomiting is excited, when it is a good plan to reduce the dose of carbolic acid and to add a small quantity of dilute nitro-hydrochloric acid. It is easy to detect the smell of carbolic acid in the breath and perspiration, but I have rarely noticed carboluria. It must also be noted that not only does diarrhœa cease, but the opposite condition —namely, obstinate constipation—is generally induced. Aperients are decidely to be avoided; if the bowels do not act for some days, I administer an enema of warm soap-and-water, or of a small quantity of castor oil emulsified in warm water with the yolk of an egg. If after convalescence there is trouble in getting a regular evacuation, I give daily small doses of belladonna and salad oil. I do not think the remedy owes its antipyretic action to a direct influence on the vascular activity through stimulation of the vagus or th cardiac gangia, but I lean to Dr. Rothe's alternative opinion that this undoubted action is the result of the causes being gradually overcome and removed. I cannot prove that the presence of carbolic acid in the system either arrests the production or destroys the already produced typhoid bacilli, but I firmly believe this to be the case. I also consider that the ulceration in the intestine is prevented, and ulcers already formed are induced to heal rapidly. No other remedies have in my experience proved reliable. I give stimulants without hesitation if necessary, and to assist recovery when a tonic is needed I prescribe bark and mineral acids.

In my note-book I have a rough analysis of one hundred and sixty cases. Seventeen were children, ten adolescents, and the remaining eighty-nine adult, the sexes of the total number being about equally divided. They belonged to all ranks of life, and the surroundings of some of the poorer cases were not conducive to cleanliness or the possibility of good sanitary arrangements. *The result in every case but one has been complete recovery*, and that one fatal case calls for the explanation that death did not take place until long after the fever was over, and from quite an accidental and adventitious cause. This case is as follows:

J. N——, aged twenty-eight, a badly-fed farm laborer, fell ill in September, 1882, and was carried safely through a smart attack of enteric fever by a strict adherence to the line of treatment indicated in this paper. Calling to see him one morning about four weeks from the commencement of his illness, the thermometer showed a temperature of 104°. This astonished me, as at my last visit a day or two previously it had fallen to the normal figure. On making examination I found under each arm a large axillary abscess. A few days afterwards I incised them both and they rapidly got well, though of course the patient was thrown back and weakened by this fresh drain on his vital resources. A fortnight after his recovery—that is, eight weeks from the typhoid invasion—his wife took the opportunity of a bright, breezy day at the end of October to scrub and clean the room they inhabited together. She conducted this operation with most praiseworthy assiduity, keeping both door and window wide open, her husband sitting on a chair in a direct line between them, surrounded by a sea of soapsuds. She did not neglect to scrub the floor under the bed, and seemed surprised at the reproof I administered when, on calling, I became an eye-witness to the above facts. Next day the poor fellow had a succession of rigors, and succumbed three days after to an attack of acute double pneumonia.—*Lancet*

THE TREATMENT OF ULCERS.—An article appeared in the London *Medical Record* for December 15, 1887, giving interesting details of the treatment of ulcers by phospohric acid, as shown by the experience of Dr. Grossich. By his method of treatment, he used a ten per cent. solution of pure phosphoric acid in distilled water. The ulcer is covered with a bit of lint dipped in this solution, and the dressing renewed three or four times a day. The patient for the first few minutes feels a slight burning sensation, but this soon passes, and with-

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in twenty-four or thirty-six hours the ulcer cleans, and looks better. Inflammation or eczema of the surrounding parts disappear, and all pruritus ceases. The ulcer cicatrizes rapidly, and the cicatrix is firm and healthy. Kollischer treated tubercular affections of the joints with injections of the phosphate of lime, with great success. Dr. Grossich has also had good results with this treatment, and cites some very interesting cases The treatment by the solution of phosphoric acid was further employed in a case of tuberculous abscess of eight months' duration, and also a case of eczema marginatum which had lasted more than a year, and good results followed. The above suggests the superiority of Horsford's Acid Phosphate as a substitute for the phosphoric acid. The effective acidity of this preparation is about the same as the ten per cent. solution of phosphoric acid which is prescribed in the above treatment, and it may therefore be justifiably employed by the profession in the treatment of disorders of this character. It has the advantage of containing the phosphates in solution, notably the phosphate of lime. It follows, then, that all cases that require the phosphoric acid treatment can be more advantageously treated by Horsford's Acid Phosphate, and the suggestion is hereby commended to the profession.

TEACHING STUDENTS TO THINK.—It is often a subject of regret to teachers in our medical schools that the work of the first two years is so soon forgotten; a man who has passed his preliminary examinations frequently so far forgets his scientific subjects in six months as to be unable, when in the hospital wards, to give a description of the cerebral supply to parts of the body, the convolutions of the brain, and the cranial nerves, or the minute anatomy of the kidney and liver; still, such students may have dissected dilligently, attended lectures, and read at night, but they have not learned to think, or are not trained to think systematically and correctly. This defect is, we suspect, not entirely the fault of the students, but is also in part due to defects in teaching. When observing students under examination, both for university degrees and on the lower examinations, it has often been obvious that failure to pass the standard may depend upon inaccurate methods of thinking and speaking—or upon no previous thinking quite as much as from ignorance of the subject-matter. Observing the objects of study in the dissecting-room does not necessarily teach thinking; to observe is to receive impressions, thinking may or may not follow observing. We have no intention of suggesting formal teaching of the laws of thought in the form of logic, though this useful science used to be one of the extra subjects in the Arts examination of the Apothecaries Society. It does, however, seem needful to call attention to the importance of educating students to think as well as to observe facts; the scientific subjects and the teaching of medicine afford plenty of scope for both. The student is generally interested in the application of scientific knowledge to practice, and to show him such connections early in his career stimulates thinking. The constant application of anatomy, physiology, chemistry, comparative anatomy, and the principles and facts of vegetable biology, to what is seen in patients, produces an expansion of the subjects of thought, and engenders habits of correct thinking. To follow well-made analogies, and to answer questions which exercise the imagination in a scientific manner, as in describing the minute conditions of circulation and the cause of nerve currents in reflex actions, necessitates correct thinking. A student will often say that he hears a systolic mitral *bruit*, and is satisfied with his achievement, without understanding that the sound heard suggests an hypothesis which requires to be fully worked out before he can know the condition of the patient. A man well trained, not only in observation, but also in rapid and correct thinking, will get through much more good work in practice than one less thoughtful. Thought, preceding action, guides him rapidly to make the necessary observations in the case before him, till thinking becomes automatic, and his opinions are rapidly formed upon brief observations, and what is ill termed "clinical instinct." In making these remarks we by no means wish to depreciate the necessity of thorough and systematic examination of all the organs as a matter of primary necessity.—*Brit. Med. Jour.*

TOBACCO AMBLYOPIA.—(By A. R. Baker, M.D., Cleveland, Ohio: Abstract.) There is a diversity of opinions expressed, as well as a lack of uniformity of symptoms described as characteristic of this disease. Some eminent authorities assert that women never suffer from this form of toxic amblyopia, while a number of cases are reported as having occurred in England. Most observers believe that it results more frequently from smoking than chewing, but Dr. Ayres says the opposite is true. Calazowski says it is of frequent occurrence among persons working in tobacco manufacturing establishments. Dr. Ely, who spent much time in examining cigar-makers, says that it rarely if ever occurs among them. There is less diversity of opinion as to treatment, some claiming that it is absolutely necessary to stop the use of tobacco entirely, while others only limit the quantity used and advise a milder tobacco. Many emphasize the necessity of prescribing strychnia; others believe iodide of potash to be the *sine qua non*, and still others have found that their cases do equally well with no medication. Probably there is no one who has carefully examined the evidence adduced who doubts the existence of a toxic amblyo-

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pia, characterized by a rapid failure of sight, a central scotoma for red and green, and no marked changes to be discovered with the ophthalmoscope. Dr. Powers has advised the inhalation of nitrate of amyl as of great temporary benefit. If there are no pathological changes in the retina, optic nerves, or cerebral centres, then the necessity for specific medication is uncalled for. I may thus summarize my conclusions on the subject:

1. There is a toxic amblyopia due to the excessive use of tobacco.

2. That the excessive use of alcohol, or other toxic agents, does not produce the same or a similar amblyotic condition, although by their depressing influence on the vital functions they may serve as predisposing causes.

3. Tobacco amblyopia does not usually lead to total blindness. The disease is essentially a functional one. Gross pathological changes have not been demonstrated either in the retina, optic nerve, or cerebral centers.

4. The course of the disease may result in a certain amount of failure of sight and then remain stationary, even though the tobacco habit be not entirely given up.

5. Stopping the use of tobacco will result in recovery of sight without the use of specific medication, although the use of strychnia and tonics, by increasing the general tone of the system, may hasten a cure. The moral effect of taking something to replace the loss of the tobacco is of great value.—*Am. Pract. & News.*

RECTAL FEEDING—From a study on the subject of rectal alimentation, Dr Weaver (Transactions of the Luzerne County Medical Society) has formulated the following conclusions:

1. By the use of enemata life can be sustained indefinitely with little if any loss of weight to the body.

2. In a larger proportion of cases in which rectal aliment is used, true digestion, of albuminous, saccharine, and fatty food takes place by virtue of inhaustion, or a reversal of the normal peristalsis of the alimentary tract.

3. While this is the case, there are doubtless instances in which retrostalsis does not occur, and for that reason the food used should first be artificially digested before being injected into the rectum.

4. While milk, eggs, and brandy are the best aliment for rectal nutrition, no one article should be used for too long a time, but frequent changes should be made, observing the greatest care to prevent irritation of the rectum, or intolerance of that organ for the nutriment required.

5. The enemata should, if possible, be administered by the physician himself. Where difficulty in retaining the aliment is encountered, the colonic method is preferable, the food being propelled through a rectal bougie. The food should be of the temperature of the body.

6. The rectum having once become intolerant of the enemata, absolute rest must be given to that viscus for a few days, and reliance be placed on nutritious inunctions of the surface of the body.

7. For rectal alimentation there exists a wider range of usefulness than has heretofore been assigned to it. It is not only appropriate in the severer forms of chronic diseases of the stomach and œsophagus, but is indicated and should be utilized in the management of all acute diseases when, from any cause, the stomach becomes intractable and rebellious.

8. In diseases of the stomach, even where a portion of the food ingested is retained by that organ only to undergo fermentation, inducing thereby pain and distress, it is more logical to resort to rectal alimentation, not as an adjunct to, but a substitute for stomachal injection.

9. Certain organic lesions, as well as functional disturbances of the stomach, are curable by means of rest to that organ, and by no other means. In rectal alimentation we have a safe and sure means of nutrition, pending the necessary period of rest. —*Dietetic Gazette.*

BILLROTH ON MACKENZIE.—The *British Medical Journal* publishes the following translation of a letter addressed to the *Neue Freie Presse*, by Professor Billroth, dated March 27th:

"With reference to your request for my opinion on Mackenzie, I can only reply that I have always warned people against passing a judgment on a man who, as a physician, occupies so difficult a position. I have never doubted the correctness of the diagnosis of my Berlin colleagues, but I have also never been able to understand what political reasons had made it necessary to communicate this diagnosis to the whole world. It cannot be admitted that Mackenzie, with his vast experience, has ever doubted the correctness of this diagnosis. If he behaved in such a way as to imply that he had some doubt about the correctness of this diagnosis, this could only be owing to pressure from above, or from motives of humanity. I know such situations from my own experience. One is not inclined to disapprove the statements of one's *confrères*, but, at the same time, one is not inclined to tell the patient that his malady is incurable, for the known want of infallibility in medical diagnosis is almost the sole ray of hope to the unfortunate incurables. Falsehood, in such cases, becomes a moral act. The entire behaviour of Mackenzie must, no doubt, be judged from this point of view. He did as a man and a physician what was still possible to be done when the unfortunate word 'cancer' had already been pronounced.

"In much the same terms as these I have, on different occasions, expressed myself as to Mac-

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kenzie's conduct. I ask you to consider this as a private communication, at least, until the sad catastrophe has occurred in Berlin."—*N. Y. Med. Rev.*

Scarlatina and Puerperal Septicæmia—I very much fear that the recent discussion on this subject may tend to diminish the wholesome dread of carrying scarlet fever to lying-in patients which has hitherto so powerfully influenced the conduct of obstetrical practitioners. That the infection of scarlatina is capable of producing a virulent form of septicæmia, generally unattended with local symptioms, I have not the smallest doubt. In April, 1863, I was called in to see a case of this kind occurring in a primipara. She was attacked about five days after delivery, and on the day following her husband was attacked with scarlet fever. He recovered very well, but she died after four days' illness. Her case was a typical one of what used to be called malignant puerperal fever. She had no rash of any kind, and no marked abdominal tenderness. We made a *post-mortem* examination, but found no uterine lesions and no sign of abdominal inflammation; but decomposition had set in most rapidly. In fact it was a case of blood-poisoning of the worst kind.

About fifteen years ago a medical practitioner (who has since left Bristol) called me in to a patient he had attended in her confinment for about four days previously, but who was attacked in a similar way to the case just mentioned, except that there was some abdominal tenderness. She died on the ninth day after delivery. About three days before she died her husband was attacked with scarlatina, but ultimately recovered. On making strict inquiry of the medical practitioner who attended her, he acknowledged that the time when the husband came to fetch him to his wife, his own children were lying ill of scarlatina.

There can be no doubt that in each case the husband and wife were infected from the same source—in the first instance, I believe, from a servant; and in the second from the medical attendant himself. I have seen many similar cases of these, but not of so well-marked a character. We know that people who have once had scarlatina are generally protected against a second attack, but yet that, if they are again exposed to infection, they may get troublesome sore throats in consequence. In the same way I believe that a puerperal woman who has had scarlatina before may get a sufficient amount of the poison to induce fatal septicæmia—unaccompanied, however, with the rash or other characteristic signs of scarlatina. The poison of scarlatina is of so subtle a character, and creeps in through so many channels, that ordinary antiseptic treatment is of little avail against it.—*Br. Med. Jour.*

Calomel in Phagedæna.—I had a case of phagedænic ulceration of the under surface of the glans penis under my charge last August, which defied the recognized treatments of this disease. I applied nitric acid in the most thorough manner on six different occasions during a period of eighteen days without success. I then applied pure carbolic acid, but the disease again returned. Constitutional treatment with opium was adopted throughout. For six days the patient sat in a hot-water hip-bath on an average about four hours daily, without any appreciable effect on the course of the disease. The condition of the penis on the twenty-first day was as follows:

A large ulcer existed, covering the entire under surface of the glans, moulding it like the mouth-piece of a flute, and extending to the reflected foreskin in the vicinity of the ulcer. A third of the glans had been destroyed. The surface of the ulcer was covered with a reddish-grey secretion, irregularly disposed, and pierced here and there by large red granulations. The edges were angry and undermined.

I applied calomel powder on the twenty-first day of the disease spreading it thickly, and pressing it well into the interstices of the ulcer. The calomel acted like magic; the ulcer began to heal rapidly. Now and then a suspicious spot appeared, but it was at once dissipated by a thorough application of the calomel. The patient made an excellent recovery, and was very pleased at the result, for he believed he was going to lose the whole affair. I was tempted to use calomel, as I had found it very useful in all forms of syphilitic ulceration.—*Br. Med. Jour.*

Formula for Terpine.—At a meeting of the Therapeutical Society of Paris, M. Vigier recommended the following formula for terpine, which contains seven and a half grains to the teaspoonful: R. Honey, glycerine, of each 100 grs.; alcohol 95 per cent.; terpine of each 7½ grs.; M. Sig.—Teaspoonful, a dose.

The terpine remains dissolved if mixed in the strength of a teaspoonful to a glass of water. A smaller amount of water than this causes the terpine to precipitate.—*Progrès Médical.*

Dr. Sittler, of Bowmanstown, Pa., writes as follows:—I have used Tongaline extensively during an epidemic of Dengue or break-bone Fever, where I had an opportunity to test it very thoroughly, and I secured much more successful results from it than from the ordinary treatment, consisting of pot. iod. vini. colchici. acid salicyl. quin. sulph. etc. In every instance Tongaline fully sustained the high character with which it is presented to the profession, and only deserves to be well known in order to be thoroughly appreciated.

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THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

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MEDICAL ASSOCIATIONS.

It may not be inopportune to remind our readers of the good work done in medical societies. Everyone is aware of the almost irresistible tendency to get into grooves, and, in daily practice to adopt too much routine. With many practitioners their treatment of to-day is precisely what it was ten or twenty years ago, their knowledge has concentrated itself into a few "practical details" whilst from a scientific standpoint they are wonderfully behind the times. This state of things may result from many conditions. The demands which press so constantly upon the medical practitioner generally, the ill luck which has given him a troublesome case just at the time he has arranged to attend the society's meeting, or the desire, which we believe prompts but the few, of being careful to "look after practice" which is attended by more successes in his neighbors abscence, are some of the predisposing causes. Although the results of the progress in medicine have not been all that carping critics demand of it, yet its yield has been well worth the time and labor spent in obtaining it, and no one with any claim to being well informed can do without adopting some of the more modern principles and suggestions; and the difficulty which every one experiences in determining what is reliable and what is useless will be materially lessened after the ventilation and discussion such subjects receive at an ordinary meeting of medical men. It is no excuse that because a previous meeting happened to be in a measure unprofitable, subsequent ones should not be attended. It is a duty which everyone owes to his profession and the public to attend and support such meetings and associations, since by them alone can medicine make great and useful advancement. By the united evidence there given, can those careful and constant workers in science receive that encouragement and acknowledgement which they deserve. And apart from the scientific and special uses of the medical associations in the daily practice of a physician, it is in, and by such associations, are cultivated and developed those nobler traits of character and that kindliness of heart with which the members of the medical profession are so replete. Often at such meetings have differences been removed and old friendships revived which form the pleasantest reminiscences of a whole life. It is but a poor man who can attend such gatherings and go away unprofited. If a meeting happens to be less instructive than one expected; if in results it did not suit you, carefully enquire the reason. Did *you* do the part specially allotted you. It is unfair to throw the whole brunt of the work upon two or three prominent officials. It is manifestly unfair to hold the president of an association accountable for the only partial success of such meeting, when members in committee have given but indifferent support and imagined their names appeared in such places merely out of compliment and attached no work or responsibility. Each has his duty to perform, if he cannot entertain by reading a paper, he can encourage by careful attention, assist by careful discussion, and thus add directly to the success of the meeting. The programme is generally arranged to allow ample time for pleasure as well as business, and should be carefully followed. If all the members were away sight-seeing and on pleasure excursions there could be nothing done.

We sincerely hope these few remarks will be remembered and be in time to benefit the meeting of the Canada Medical Association to be held in Ottawa on September 12th, 13th and 14th next, and that members of the profession will feel it their duty to attend. It is said the public do not sufficiently recognize the work done by the profession. The fault lies with ourselves. Our voice, when raised, is often enfeebled from lack of interest and enthusiasm, and our influence undervalued because it is not concentrated.

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THE SOUP BATH.

The importance of tiding children over a considerable period of time, in certain chronic diseases of the bowels, is appreciated by every practitioner. When the bowels are in such a condition that even the blandest foods act as irritants, and the digestive processes are very imperfectly performed, nourishment cannot be administered in quantities at all commensurate with the wants of the system, and the child eventually sinks from pure inanition. If the stomach does not reject food, enough may be absorbed in that organ to keep nutrition fair, for some time; but, as is a common experience, the simplest alimentation is sometimes too much for the stomach, and other means have to be sought to keep up the patient's strength. Rectal feeding may be useful, but in the great majority of these cases, the lower bowel is in so irritable a condition as to be intolerant of even the most carefully prepared and administered nutrient enemata.

Inunction with some of the oils, preferably olive oil, will aid other measures, the abdomen being the region usually selected for the friction, which should be gentle and produced by the warmed hand of the nurse. A table-spoonful or two may be thus used two or three times a day. But in such cases, says Dr. Hopkins, in the *Medical Record*, "the soup bath becomes a boon beyond all price. It not only relieves the thirst (which may be accomplished also by prolonged immersion in tepid water) but imparts sufficient nourishment to tide the patient over the critical period. We have known a child's life most evidently saved by this simple means. Let some pieces of mutton or other meat, sufficient for making two or three gallons of good soup, be first simmered for an hour and then boiled sufficiently long to thoroughly soften and extract the juices. In skimming, do not take away all the fat. The latter may be skimmed off while cooling and kept warm for inunction later. Pour the soup, when ready, into the little bath-tub, and, when sufficiently cool, immerse the child in it for a period of twenty minutes. It should, of course, have sufficient depth to cover the entire body, the head being supported by the nurse's hand. This should be repeated twice daily, the bath being re-warmed for a second use, and a fresh soup made if possible, each day. Let the bath be followed by inunction of the entire body with the warm fat that was set aside. After two or three days, if the case improves, the stomach will begin to retain light nourishment."

THE GERMAN SURGEONS' REPORT.

Now that the Emperor Frederick is dead, and the Empress has, by her accession, received the property which could not have come to her had he never ascended the throne, the German surgeons are showing up Mackenzie in a manner that will not be approved of by the profession, and which will have the effect of lowering the estimation of medical science and skill in the eyes of the whole world. It is easy to be wise after the event, and the reports submitted by Drs. Bergmann, Schroetter and Gerhardt show this wisdom in a large measure. They "knew all along" what was the trouble, and would make it appear that Mackenzie removed a healthy piece of larynx, which Virchow diagnosticated as *pachydermia laryngis*. This sounds rather absurd on the face of it. We shall, no doubt, be left in the dark as to the true inwardness of the case for some time to come, Dr. Mackenzie keeping very quiet, and only giving an outline of a more full and complete report to come. In this short report he says:

"In my opinion the disease from which the Emperor died was cancer. The morbid process probably commenced in the deepest tissues of the cartilaginous structures of the larynx, and they became affected at a very early date. A small growth, which was present when I first examined the late Emperor, was removed by me by several operations, and all the portions taken away were submitted to Professor Virchow. He was unable to detect in them any evidence of the existence of cancer. Examinations made at the beginning of March by Professor Waldeyer, however, led to the belief that cancer was then present. Whether the disease was originally cancerous, or assumed a malignant character some months after its first appearance, it is impossible to state. The fact that perichondritis and caries of the cartilages played an active and important part in the development of the disease, no doubt largely contributed to make it impossible to form a decided opinion as to its nature till quite a recent date."

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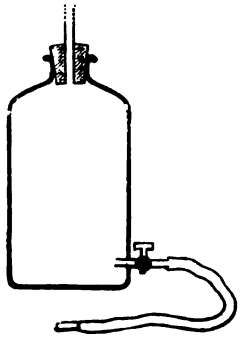
THE STOMACH-PUMP SUPERSEDED.

Dr. D. Yellowlees writes as follows to the LANCET:—The recent correspondence as to the use of covered funnels in feeding by the stomach tube, leads me to give greater publicity to a far better contrivance, which I devised many years ago, and constantly use here. An ordinary twenty ounce bottle, perforated near the bottom by a small tap for the admission of air, and a long stomach tube bearing a cork which fits the mouth of the bottle, constitute the whole apparatus. The food being mixed in the bottle, the tube is introduced, the cork placed in the mouth of the bottle, the bottle inverted and raised, and the air-tap opened, when the food passes quickly into the stomach in a continuous stream. Great injecting force can be at once applied, if required, by *blowing* through the air-tap, to which a small rubber tube is attached for this purpose. For simplicity, cleanliness, efficiency, and perfect inspection, this plan leaves nothing to be desired, and solid nourishment can be thus given in many forms, as there is no tap to obstruct its passage, and as the food can be kept in agitation within the bottle during administration. No one who has used this contrivance will wish for any other. It is equally available for emptying the stomach, by lowering the bottle and establishing a syphon action by suction.



SULPHONAL.—It would appear that experience confirms the first statements regarding the therapeutical effects of this drug. Dr. Rosin, says the *Br. Med. Jour.*, concludes as follows:—"On the whole, sulphonal in doses of two grammes is as certain in its effects as morphine or chloral, and in cases of simple insomnia may be recommended in doses of double that strength, on account of its freedom from after-effects." The same authority says that Dr. Oestreicher, having observed the effects of sulphonal on fifty patients, some nervous and some phthisical, concludes—"that in moderate doses—that is, two grammes—this drug is a non-injurious hypnotic. Respiration, pulse, and kidney-secretion were unaffected; the effects of persistent use are, of course, unknown at present. It is best given in capsules or tabloids, from its insolubility in water. Oestreicher finds it without smell or taste; Rosin states that it has a slight bitter taste. Sleep sets in more slowly than after chloral or morphine in corresponding doses, but lasts longer."

ANOTHER DANGER FROM ETHERIZATION.—Dr. Hare, of the University of Pennsylvania, has drawn attention (*Therap. Gaz.*) to the fact that the temperature of patients subjected to tolerably prolonged etherization for operation varies as much as three degrees. This was not due, he believed, so much to the shock of the operation as to the anæsthetic. It is quite common to find it necessary to apply artificial aids to patients who have been removed from the operating table to restore heat to the chilled surface, especially when ether has been used. Experiments made on dogs shows that the rectal temperature may be reduced from 8° to 10° F. by giving five drachms of ether every five minutes for an hour. It is suggested that surgeons would do well to combat this action of ether by heat giving appliances while the patient is undergoing the operation.

A SANITARY Convention and meeting of the Executive Association of Health Officers, under the presidency of Dr. P. Palmer Burrows, will be held by invitation of the Mayor and Council of Lindsay, on Tuesday, Wednesday and Thursday, the 14th, 15th and 16th of August, 1888. As subjects of general interest to every city, town, village and hamlet will be discussed, and papers presented by eminent scientists, it is hoped that every place will be represented. Reduced fares have been arranged on Canada Pacific and Grand Trunk Roads (fare and a third). Those wishing a pleasant outing should visit Lindsay during the Convention.

ANTIPYRIN IN LABOR.—The effect of antipyrin enemata was found by Laget, (*Therap. Monat.*) to be the rendering of the contractions of the uterus in very severe labor, entirely painless. Steinthal succeeded by an enemata of two grammes in a cupful of water, in rendering painless the unbearable "pains" of a primipara who had been suffering twenty hours. The force of the uterine contractions seems to be in no degree lessened. Other observers have noted the same results.

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Canadian Medical Association.—The following papers have already been promised for the Canadian Medical Association meeting, which will be held in Ottawa on the 12th, 13th and 14th of September: "Face Presentation," Dr. W. M. Mackay, Woodstock; "The Mortality of Pneumonia," Dr. Wm. Osler, Philadelphia; "The Duty of the Medical Profession under the Public Health Act of Ontario," Dr. Wm. Canniff, Toronto; "On Some Minute but Important Details in the Management of the Continuous Current in the Treatment of Fibroid and other Diseases of the Uterus," Dr. A. L. Smith, Montreal; "A Case of Resilient Stricture of the Urethra cured by Electricity," Dr. A. L. Smith, Montreal; "On the Treatment of Varicocele and Orchitis by the Electrical Current of Tension," Dr. A. L. Smith, Montreal. Papers have also been promised by Drs. Fenwick, Shepherd, Alloway, Blackader and Bell, of Montreal.

Cascara Sagrada in Rheumatism.—Dr. H. T. Goodwin says *(N. Y. Med. Jour.)* he has used cascara sagrada in about thirty cases of rheumatism with the most beneficial results, except in three or four where there was a syphilitic taint. If the bowels are acted upon too freely by it, the writer recommends the administration at the same time, of one of the preparations of iron. The explanation of its action is still to be sought, the writer gives his experience simply.

For Neuralgia.—Dr. Richardson recommends *(Asclepiad)* the following formula in neuralgia:—

R.—Croton chloral	gr. ij.
Quinia	gr. ij.
Glycerin	q. s.
	M. fl. pil.

One to be taken when the attack threatens, and to be repeated every two hours until relief is obtained.

As the world advances old landmarks and aphorisms give way. Thus, the ancient proverb has it, says the *Western Druggist*, "You cannot get more out of a bottle than you put in it." That's an error. Besides what he put in, he can get a headache, a sick stomach, and perhaps ten days in the lock-up.

The Council Examinations will be held in Toronto in September, commencing on the 18th.

Dr. Lawson Tait, has succeeded in curing six out of eight cases of acute suppurative peritonitis, of various origin, by laparotomy and drainage.

We are pleased to note that Dr. G. Sterling Ryerson has been presented at Court by Lord Wolseley. The Dr. was the sole American representative at the Donder's festival at Utrecht.

British Diploma.—Dr. Gilbert Gordon of Toronto, has lately taken the Diploma of L.R.C.P. & S. Edin. and L.S.P. & S. Glasgow.

Dr. John Milner Fothergill, M.D., Edinburgh, author of a number of medical works, died lately of diabetes, from which he has suffered for a number of years.

We regret that the name of Dr. Peters was by an inadvertence omitted from the list of those appointed to the extern department of the Toronto General Hospital, in our last issue.

We beg to direct attention to a new and elegant preparation of Effervescing Antipyrin, prepared by Lyman Bros. & Co., notice of which will be found in our advertising pages. The name of this firm is a sufficient guarantee of its being carefully prepared.

We are constantly in the receipt of letters testifying to the very excellent quality of Dr. Jerome Kidder's electric batteries. We have pleasure in specially recommending them, for we conscientiously believe them the best in the market. Although an American instrument, and hence requiring the payment of duty to bring them into Canada, yet practitioners will do well to communicate with the Kidder Electrical Company if in need of electrical apparatus.

We have received from the agents of Henri Nestle, Vevey, a photograph of a group of medals awarded to Nestle's Milk Food by thirty juries in all quarters of the globe. Accompanying the photograph is the brief but significant request that we note the unusual, and hitherto unattained, award of twelve diplomas of honor having been given Nestle's milk food. We have known of Nestle's Food for some years as being one of several infants' foods in the market, but we are free to confess we have not hitherto known that this food enjoyed such evident pre-eminence in European centres as the group of medals sent us would indicate. Any preparation that goes into competition before the juries of thirty World Expositions, and bears away eighteen gold medals, and in twelve instances the coveted diplomas of honor, must possess a very high order of merit.

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THE

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A Monthly Journal of Medical and Surgical Science, Criticism and News.

(Index next page.

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Château-Landon, March 29th 1883.

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Vireux-Wallerand (Ardennes), May 4th 1883.

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May, 24th 1883.

..... The patient had no more fits since he uses your Pills... GAYE, M. D. Préguillan.

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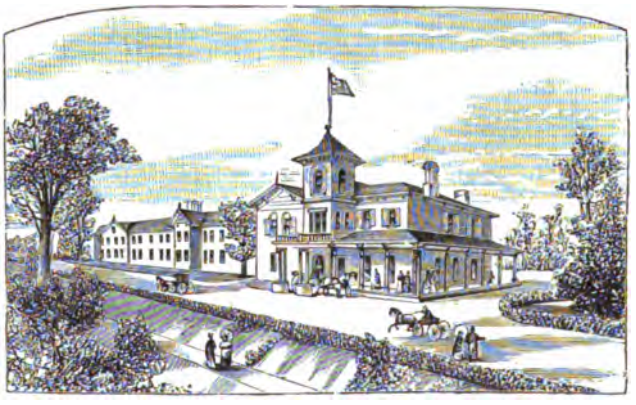

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The following are the Officers of the Association:

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Secretary—James Bell, M.D., Montreal.
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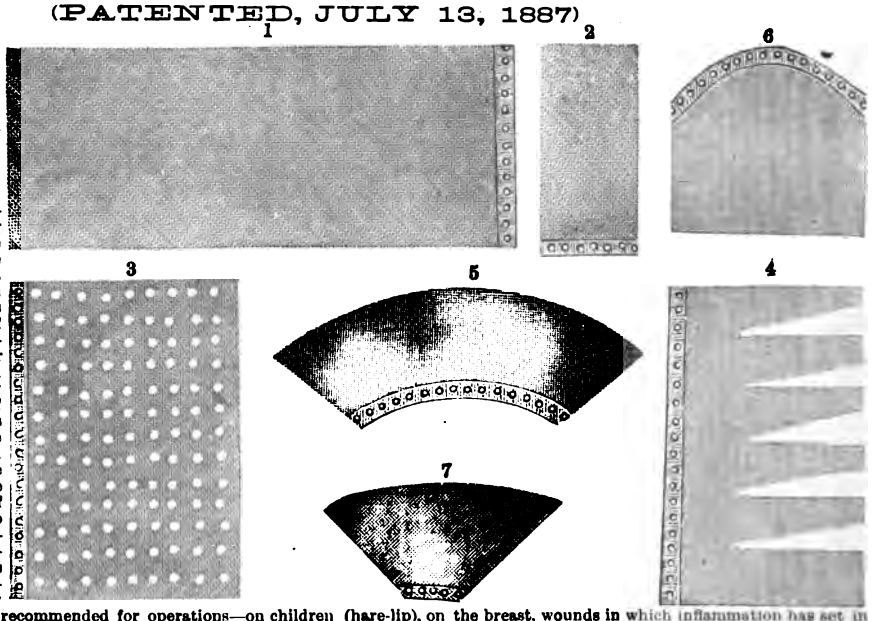

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The term Parvule, from (*Parvum*) small, is applied to a new class of remedies (Warner & Co.'s) in the form of minute pills, containing minumum doses for frequent repetition in cases of children and adults. It is claimed by some practitioners that small doses, given at short intervals, exert a more salutary effect. Sydney Ringer, M.D., in his recent works on Therapeutics, sustains this theory in a great variety of cases.

PARVULES OF CALOMEL, 1-20. (Warner & Co.)

Med. Prop.—Alterative, Purgative.

Dose.—1 to 2 every hour. Two Parvules of Calomel, taken every hour, until five or six doses are administered (which will comprise but half a grain), produce an activity of the liver which will be followed by bilious dejections and beneficial effects, that twenty grains of Blue Mass or ten grains of Calomel rarely cause, and sickness of the stomach does not usually follow.

PARVULES OF CALOMEL AND IPECAC. (Warner & Co.)

R. Calomel, 1-10 gr. Ipecac, 1-10 gr.

Med. Prop.—Alterative, Purgative.

Dose.—1 to 2 every hour. Two Parvules of Calomel and Ipecac, taken every hour until five or six doses are administered (which will comprise but a grain of Calomel), produce an activity of the liver, which will be followed by bilious dejections and beneficial effects, that twenty grains of Blue Mass or ten grains of Calomel rarely cause, sickness of the stomach does not usually follow.

PARVULES OF ALOIN, 1-10. (Warner & Co.)

Med. Prop.—A most desirable Cathartic.

The most useful application of this Parvule is in periodic irregularities—Dysmenorrhœa and Amenorrhœa. They should be given in doses of one or two every evening at and about the expected time.

Dose —4 to 6 at once. This number of Parvules, taken at any time, will be found to exert an easy, prompt, and ample cathartic effect, unattended with nausea, and in all respects furnishing the most aperient and cathartic preparation in use. For habitual constipation, they replace, when taken in single parvules, the various medicated waters, avoiding the quantity required by the latter as a dose, which fills the stomach and deranges the digestive organs.

PARVULES OF PODOPHYLLIN, 1-40. (Warner & Co.)

Med. Prop.—Cathartic, Cholagogue.

Two Parvules of Podophyllin, administered three times a day will re-establish and regulate the peristaltic action and relieve habitual constipation, add tone to the liver, and invigorate the digestive functions.

PARVULES OF ARSENIT: POTASH, 1-100. (Warner & Co.)

This Parvule will be of great use to physicians, as two Parvules represent the equivalent of one drop of **Fowler's Solution,** so that physicians can regulate the dose by giving one or more Parvules every hour.

PARVULES OF CORROSIVE SUBLIMATE, 1-100. (Warner & Co.)

Dr, Ringer, in his treatise, lays great stress upon the efficacy of minimum doses of corrosive sublimate in the treatment of Diarrhœa, whether the stools contain blood or not.

PARVULES OF NUX VOMICA, 1-50. (Warner & Co.)

Nux Vomica, according to Ringer, is possessed of real curative powers for sick headache, accompanied with acute gastric catarrh, whether due to error in diet, constipation, or no apparent cause. He regards it, administered in small and frequently repeated doses, as useful in many disturbances of the gastric functions.

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Index of Diseases Treated with Parvules.

THE dose of any Parvule will vary from one to four, according to age or the frequency of administration. For instance, one Parvule every hour, two every two hours, or three every three hours, and so on, for adults. For children, one three times a day is the minimum dose.

It is claimed by many practitioners that small doses, frequently repeated, exert a more salutary effect.

Atonic Dyspepsia.
Parv. Nux. Vomica.....1-50 gr.

Bilious Conditions.
Parv. Calomel .....1-20 gr.

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Parv. Tartar Emetic.....1-100 gr.

Constipation.
Parv. Aloin .....1-10 gr.

Diarrhœa.
Parvules Corros. Sublimate .....1-100 gr.

Exanthematous Skin Diseases.
Parv. Iodide Arsenic.....1-100 gr.

Habitual Constipation.
Parv. Podophyllin .....1-40 gr.

Hydatic Uterine Growth.
Parv. Ergotine.....1-10 gr.

Incontinence of Urine.
Parv. Canthari .....1-50 gr.

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Parv. Aconite.....1-20 gr.

Influenzas.
Parv. Iod. Arsenic. .....1-100 gr.

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Parv. Iod. Arsenic.....1-100 gr.

Mucous Rectal Discharges.
Parv. Tannin .....1-10 gr.

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Parv. Ipecac.....1-50 gr.

Retarded Menstruation.
Parv. Ergotine. .....1-10 gr.

Scrotula.
Parv. Calomel, 1-20, and Aloin .....1-10 gr.

Sick Headache.
Parv. Nux. Vom .....1-50 gr.

Sickness of Pregnancy.
Parv. Belladonna.....1-20 gr.

Sluggish Bowels.
Parv. Podophyllin.....1-40 gr.

Spermatorrhœa.
Parv. Phosph .....1-200 gr.

Summer Diarrhœa.
Parv. Mercury with Chalk .....1-10 gr.

Syphilis.
Parv. Calomel.....1-20 gr.

Syphilitic Headache.
Parv. Cor. Subl. .....1-100 gr.

Torpidity of Liver.
Parv. Podophyllin.....1-40 gr.

Uterine Hemorrhages.
Parv. Ergotine.....1-10 gr.

Vesicular Emphysema.
Parv. Digitalis .....1-20 gr.

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NERVOUS HEADACHE, MIGRAINE, SLEEPLESSNESS and BRAIN FATIGUE

EFFERVESCING

BROMO
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SODA

Each teaspoonful contains Bromide Sodium 30 grs. and Caffein 1 gr.

Useful in Nervous Headache, Sleeplessness, Excessive Study, Over Brainwork, Nervous Debility, Mania, etc., etc.

DOSE.—A heaping teaspoonful in half a glass of water, to be repeated after an interval of thirty minutes, if necessary.

It is claimed by some prominent specialists of nervous diseases that the Sodium Salt is more acceptable to the stomach than the Bromide Potassium. An almost certain relief is given by the administration of this Effervescing Salt.

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The Lactophosphates prepared from the formula of Prof. Dusart, of the University of Paris. Combines with a superior Pemartin's Sherry Wine and Aromatics in an agreeable cordial easily assimilable and acceptable to the most irritable stomachs.

Phosphorus, the oxidizing element of the Nerve-Centres for the generation of Nerve Force; Lime Phosphate, an agent of Cell Development and Nutrition; Soda Phosphate, an excitant of Functional Activity of Liver and Pancreas, and Corrective of Acid Fermentation in the Alimentary Canal; Iron, the Oxidizing Constituent of the Blood for the Generation of Heat and Motion; Phosphoric Acid, Tonic in Sexual Debility; Alkaloids Calisaya, Anti-Malarial and Febrifuge; Extract of Wild Cherry, uniting with tonic power the property of calming irritation and Diminishing Nervous Excitement.

The Superiority of the Elixir consists in uniting with the Phosphates the special properties of the Cinchona and Prunus of Subduing Fever and Allaying Irritation of the Mucous Membrane of the Alimentary Canal which adapts it to the successful treatment of Stomach Derangements and all diseases of Faulty Nutrition, the outcome of Indigestion, Malassimilation of Food, and FAILURE OF SUPPLY of these essential elements of Nerve Force and Tissue Repair.

The special indication of this Combination of Phosphates in Spinal Affections, Caries, Necrosis, Ununited Fractures, Marasmus, Poorly Developed Children, Retarded Dentition, Alcohol, Opium, Tobacco Habits, Gestation and Lactation to promote Development, etc., and as a PHYSIOLOGICAL RESTORATIVE in Sexual Debility and all used-up conditions of the Nervous System should receive the careful attention of good therapeutists. There is no Strychnia in this preparation, but when indicated, the Liquor Strychniæ of the U. S. Dispensatory may be added each fluid drachm of the solution to a pound bottle of the Elixir making the 64th of a grain to a half fluid ounce, an ordinary dose, a combination of a wide range of usefulness, especially in Dyspeptic Troubles with Constipation, in Nervous Debility, and in Chronic Malaria

DOSE.—For an adult, one tablespoonful three times a day, after eating; from seven to twelve years of age, one dessert-spoonful; from two to seven, one teaspoonful. For infants, from five to twenty drops, according to age.

Prepared at the Chemical Laboratory of T. B. WHEELER, M.D., MONTREAL, D.C

Put up in pound bottles and sold by all Druggists at One Dollar.

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FORMULA.—Every Fluid-Drachm represents FIVE grains EACH—Celery, Coca, Kola, Viburnum and Aromatics.

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Unrivaled as a Uterine Tonic in Irregular, Painful, Suppressed and Excessive Menstruation.

IT RESTORES NORMAL ACTION TO THE UTERUS, AND IMPARTS VIGOR TO THE ENTIRE UTERINE SYSTEM.

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Wyeth's ⁜ Compressed ⁜ Triturated ⁜ Drugs.

Safer, Pleasanter, and more Efficient and Convenient Medication for Infants, the Fastidious, and Idiosyncratic.

An Innovation.

Brunton points out that the introduction of the method of giving small doses at frequent intervals has "*the ery great advantage that the desired effect can be produced with greater certainty and with less risk of an overdose eing taken.*"

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The Compressed Triturates are "intimate mixtures of substances with sugar of milk." In no way are they llied to the sugar of milk of globules or pellets, dependent so largely upon chance for the absorption of the medica- nents poured down the side of the bottle. The following directions are those given in the Pharmacopœia, U.S., for he preparation of Triturates: "Take of the substance ten parts, sugar of milk in moderately fine powder ninety arts, to make one hundred parts; weigh the substance and the sugar of milk separately; then place the substance, reviously reduced if necessary to a moderately fine powder, into a mortar, add about an equal bulk of sugar of nilk, mix well by means of a spatula and triturate them thoroughly together. Add fresh portions of the sugar of nilk from time to time, until the whole is added, and continue the trituration until the substance is intimately nixed with the sugar of milk and finely comminuted.

Resume of Advantages.

1. The Compressed Triturates are made with the pure drug and sugar of milk.

2. The process of trituration, employed so finely, subdivides and separates the mass of medicament, that this is aid to be more active than would the same quantity given in the ordinary way.

3. They contain each a very small dose, so that by giving one at a time—they may be repeated often—the taste f the drug is hardly, if at all, perceived.

4. Being made with sugar of milk, one of them (if not taken whole) added to a little milk or other fluid is at nce "broken up" and distributed throughout the liquid.

5. Pulverulent substances, like calomel, are by this means especially distributed well, and for the moment uspended throughout the fluid.

6. Being very small, and not globular, they are easy to swallow.

7. They do not harden and become insoluble with time, nor do they crumble like pills.

8. They afford the advantages derivable from the administration of small doses repeated often, which are: l. That if the drug be given in but little liquid, the absorbent power of the mucous membrane of the mouth and ullet are called repeatedly into requisition. 2. That if given on an empty stomach (as is generally desirable) npleasant symptoms are avoided. 3. In case of idiosyncrasy, the doses can be stopped before large amounts have een given. 4. Administered in this way drugs are better tolerated than is otherwise the case.

9. A greater effect is alleged to be attainable by this method from a small quantity of medicine than is possible by the usual plan.

10. In some cases Compressed Triturates are repeated as often as every five or ten minutes, and it is surprising *how soon a very small dose of medicine repeated often amounts to a very large quantity.*

11. If taken whole, one of the Compressed Triturates dissolves and falls to pieces in the stomach at once, and is never voided unchanged.

12. They afford accuracy of dose, without the trouble and annoyance of weighing or measuring.

13. They can be taken at any time and in any place, even when the patient is following his ordinary avocation.

14. They are only a few lines in thickness and about one-fourth the circumference of a lead pencil.

LIST OF COMPRESSED TRITURATES.

Aconite Tinct	1 min.	Anti-Constipation	Aloin 1-5 gr. Belladon. Ex. 1-8 gr. Strych. 1-60 gr. Ipecac. 1-16 gr.
Arsenious Acid	1-00 and 1-50 gr.	Apomorphine Mur	1-50 gr.
Belladonna Tinct	1 min.	Atropin Sulph	1-100 gr.
Calcium Sulphide	1-10 gr.	Digitalin	1-100 gr.
Capsicum Tinct	1 min.	Euonymin Resin	1-8 gr.
Digitalis Tinct	1 min.	Hydrarg. Iod. Rub	1-20 gr.
Hydrarg. Perchlor	1-100 gr.	Hydrarg. Iod. Vir	1-8 gr.
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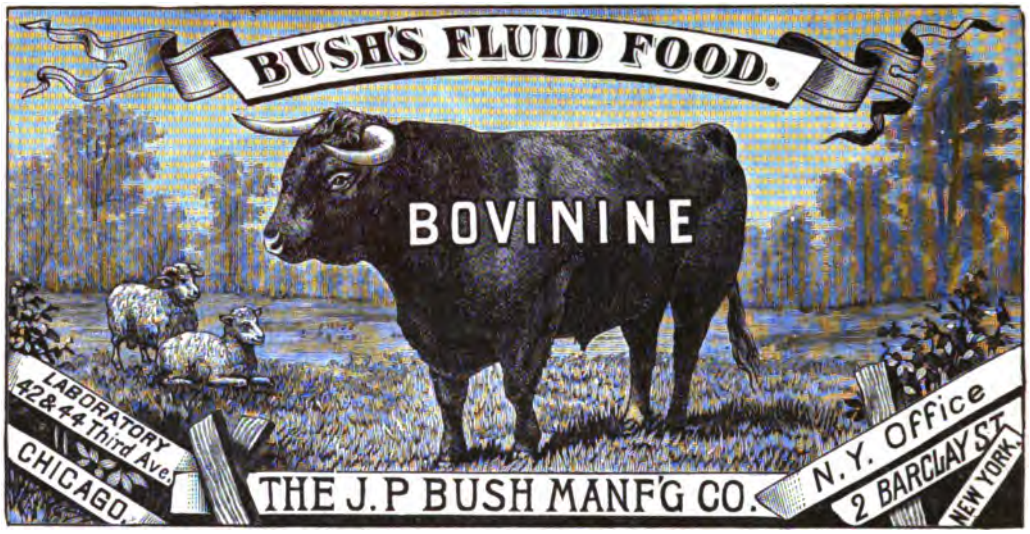

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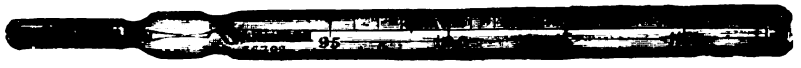

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